CHINA.

IMPERIAL MARITIME CUSTOMS.

II.—SPECIAL SERIES: No. 2.

MEDICAL REPORTS,

FOR THE HALF-YEAR ENDED 30TH SEPTEMBER 1900.

60th Issue.

PUBLISHED BY ORDER OF

The Inspector General of Customs.

SHANGHAI:

PUBLISHED AT THE STATISTICAL DEPARTMENT OF THE INSPECTORATE GENERAL OF CUSTOMS,

AND SOLD BY

KELLY & WALSH, LIMITED: SHANGHAI, HONGKONG, YOKOHAMA, AND SINGAPORE.

LONDON: P. S. KING & SON, 2 AND 4, GREAT SMITH STREET, WESTMINSTER, S.W.

[*Price* $1.]

1902.

National Oceanic and Atmospheric Administration

Environmental Data Rescue Program

ERRATA NOTICE

One or more conditions of the original document may affect the quality of the image, such as:

Discolored pages
Faded or light ink
Binding intrudes into the text

This document has been imaged through the NOAA Environmental Data Rescue Program. To view the original document, please contact the NOAA Central Library in Silver Spring, MD at (301) 713-2607 x124 or www.reference@nodc.noaa.gov.

Lason, Inc.
Imaging Subcontractor
Beltsville, MD
December 20, 2000

CHINA.

IMPERIAL MARITIME CUSTOMS.

II.—SPECIAL SERIES: No. 2.

MEDICAL REPORTS,

FOR THE HALF-YEAR ENDED 30TH SEPTEMBER 1900.

60th Issue.

PUBLISHED BY ORDER OF

The Inspector General of Customs.

SHANGHAI:

PUBLISHED AT THE STATISTICAL DEPARTMENT OF THE INSPECTORATE GENERAL OF CUSTOMS,

AND SOLD BY

KELLY & WALSH, LIMITED: SHANGHAI, HONGKONG, YOKOHAMA, AND SINGAPORE.

LONDON: P. S. KING & SON, 2 AND 4, GREAT SMITH STREET, WESTMINSTER, S.W.

[*Price* $1.]

1902.

INSPECTOR GENERAL'S CIRCULAR No. 19 OF 1870.

INSPECTORATE GENERAL OF CUSTOMS,

PEKING, 31*st December* 1870.

SIR,

1.—IT has been suggested to me that it would be well to take advantage of the circumstances in which the Customs Establishment is placed, to procure information with regard to disease amongst foreigners and natives in China; and I have, in consequence, come to the resolution of publishing half-yearly in collected form all that may be obtainable. If carried out to the extent hoped for, the scheme may prove highly useful to the medical profession both in China and at home, and to the public generally. I therefore look with confidence to the co-operation of the Customs Medical Officer at your port, and rely on his assisting me in this matter by framing a half-yearly Report containing the result of his observations at.....upon the local peculiarities of disease, and upon diseases rarely or never encountered out of China. The facts brought forward and the opinions expressed will be arranged and published either with or without the name of the physician responsible for them, just as he may desire.

2.—The suggestions of the Customs Medical Officers at the various ports as to the points which it would be well to have especially elucidated, will be of great value in the framing of a form which will save trouble to those members of the medical profession, whether connected with the Customs or not, who will join in carrying out the plan proposed. Meanwhile I would particularly invite attention to—

a.—The general health of.....during the period reported on; the death rate amongst foreigners; and, as far as possible, a classification of the causes of death.

b.—Diseases prevalent at.....

c.—General type of disease; peculiarities and complications encountered; special treatment demanded.

d.—Relation of disease to { Season. / Alteration in local conditions—such as drainage, etc. / Alteration in climatic conditions. }

e.—Peculiar diseases; especially leprosy.

f.—Epidemics { Absence or presence. / Causes. / Course and treatment. / Fatality. }

Other points, of a general or special kind, will naturally suggest themselves to medical men; what I have above called attention to will serve to fix the general scope of the undertaking.

* * * * *

3.—Considering the number of places at which the Customs Inspectorate has established offices, the thousands of miles north and south and east and west over which these offices are scattered, the varieties of climate, and the peculiar conditions to which, under such different circumstances, life and health are subjected, I believe the Inspectorate, aided by its Medical Officers, can do good service in the general interest in the direction indicated; and, as already stated, I rely with confidence on the support and assistance of the Medical Officer at each port in the furtherance and perfecting of this scheme. You will hand a copy of this Circular to Dr. ....., and request him, in my name, to hand to you in future, for transmission to myself, half-yearly Reports of the kind required, for the half-years ending 31st March and 30th September—that is, for the Winter and Summer seasons.

4.— * * * * *

I am, etc.,

(Signed) ROBERT HART,
Inspector General.

To

THE COMMISSIONERS OF CUSTOMS.

TABLE OF CONTENTS.

The Contributors to this Volume are:—

WILLIAM KIRK, M.D., M.CH.	Ichang.
JOHN D. THOMSON, M.B., C.M.	Hankow.
HERBERT J. HICKIN, M.B.	Ningpo.
RODERICK J. J. MACDONALD, M.D.	Wuchow.
J. H. LOWRY, L.R.C.P.Ed., L.R.C.S.Ed.	Hoihow and Kiungchow.
H. M. MCCANDLISS, M.D.	„ „
A. SHARP DEANE, F.R.C.S.	Pakhoi.
— ORTHOLAN, M.D.	Szemao.

DR. WILLIAM KIRK'S REPORT ON THE HEALTH OF ICHANG

For the Year ended 30th September 1900.

DURING this period the general health of the foreign community, now averaging 50 persons, has been on the whole good, although several cases of severe illness have to be recorded.

Three deaths occurred—two from malaria, and one from heat apoplexy accelerated by alcoholism.

There were three births, one still-born.

The winter months, colder than usual, were for the most part healthful and invigorating. The snowfall was considerably above the average, and there were frequent prolonged spells of frost.

The lowest thermometrical reading—20° F.—was taken on the 29th January. The spring was unusually dry, coincident with a general drought which seems to have existed over many parts of the northern hemisphere during this period. From January to June, which period includes the usual rainy season, rain fell to the extent of only 8.47 inches.

The greatest rainfall on one day—1.05 inches—occurred on the 6th April.

The summer was exceptionally severe, although shorter in duration. The great heat began about the third week in July and lasted, roughly, four weeks, the sustained high temperature during this period, rendered all the more oppressive by the usual up-river breeze being less in evidence, resulting in much discomfort and sickness.

An absolute immunity from cholera, typhoid, small-pox, and diphtheria was enjoyed, and no disease save malaria assumed an epidemic nature. The bucket system is the method in vogue here, and in the absence of an up-to-date drainage system and water supply, it seems to work admirably.

A disease resembling hay fever was present in May and June, and tonsillitis in its various forms was also at this period unusually common.

Among the foreign community the following cases have been treated during the period under review:—

Malaria	8	Chicken-pox	2
Chronic diarrhœa	8	Heat apoplexy	1
Tonsillitis	8	Hæmorrhoids	1
Dysentery, acute	4	Stomatitis	3
„ chronic	3	Hepatic congestion	4
Infantile diarrhœa	1	„ abscess	2
Dyspepsia	1	Appendicitis	1
Rheumatism	2	Nephritis	2
Bronchitis	2	Urticaria	2
Alcoholism	1		

The malarial cases occurred for the most part in early summer, and were all of remittent type. Two of these cases proved fatal, hyperpyrexia being the cause of death in both. Quinine in its different forms and by the different routes was tried, also antipyrin, phenacetin, cold baths, tepid sponging, etc.; but temporary subsidences were only to be followed by higher rises, until eventually, in each case, the temperature mounted to 110° F., at which death ensued.

Two of the dysenteric cases lapsed into the ulcerative type (MANSON), the stools containing, besides blood and mucus, yellow and ash-grey shreddy stinking sloughs, of sizes varying from that of a split pea to bulky tracts of the diseased membrane. Recovery in both cases was slow. Soda sulphate in hourly drachm doses, combined with quinine enemata, gave best results in these cases. Salol was also found most effective where the stools were offensive and foul-smelling. As a bowel disinfectant this drug has few equals.

During the hot months diarrhœa was unusually common, and in one or two instances dysenteric symptoms supervened; but complete rest in bed, with careful dieting and an occasional dose of salicylate of bismuth and Dover's powder, generally sufficed to allay them.

Since the death, 18 months ago, of Dr. RANKINE, of the Church of Scotland Mission, whose services among both the foreign and native community at this port were much appreciated, little medical work has been done among the Chinese; but as far as I can gather, there has been no epidemic or unusual amount of sickness among them. Owing to the Boxer outburst and the other sudden and startling developments of the past six months, which resulted in the withdrawal of the missionary element from this port, the opening of the much-needed hospital built by Dr. RANKINE has had to be postponed.

The crew of H.B.M.S. *Esk*, stationed here during the winter months, enjoyed excellent health throughout; but those of the gun-boats *Woodcock* and *Woodlark* were less fortunate. Stationed here at intervals during the spring and summer, the crews of these vessels suffered greatly from the heat, and cases of diarrhœa, fever, and malaria were of common occurrence. Mr. C. F. GOODHART, Tidesurveyor at this port, whose marked consideration for the well-being and comfort of the men of H.B.M.'s navy is well known, very kindly placed his

commodious house-boat—the *Jubilee*—at the disposal of the *Woodlark*, and in the absence of more suitable accommodation on shore, it served a most excellent purpose and was much appreciated.

I append an abstract from the Customs meteorological observations.

METEOROLOGICAL TABLE, October 1899 to September 1900.

MONTH.	THERMOMETER.				BAROMETER.		RAINFALL.	
	Highest.	Lowest.	Average Highest.	Average Lowest.	Highest.	Lowest.	No. of Hours.	Quantity.
1899.	° *F.*	° *F.*	° *F.*	° *F.*	*Inches.*	*Inches.*		*Inches.*
October	90	47	70.0	54.6	30.24	29.77	42	1.67
November	74	33	66.1	45.9	30.42	29.74	20	0.45
December	76	32	56.2	39.5	30.44	29.59	17	0.68
1900.								
January	58	20	44.4	29.2	30.55	29.77	21	0.30
February	74	27	55.9	32.0	30.47	29.63	14	0.51
March	83	33	65.0	44.0	30.22	29.38	33	1.08
April	88	47	73.8	54.7	30.15	29.29	59	3.46
May	102	55	87.7	64.5	30.17	29.34	27	1.98
June	103	61	92.3	70.8	29.82	29.33	24	1.19
July	104	71	97.3	75.9	29.68	29.16	30	3.59
August	110	68	102.0	76.6	29.69	29.22	22	4.08
September	105	61	94.2	68.0	30.15	29.54	25	1.03

DR. JOHN D. THOMSON'S REPORT ON THE HEALTH OF HANKOW

For the Half-year ended 30th September 1900.

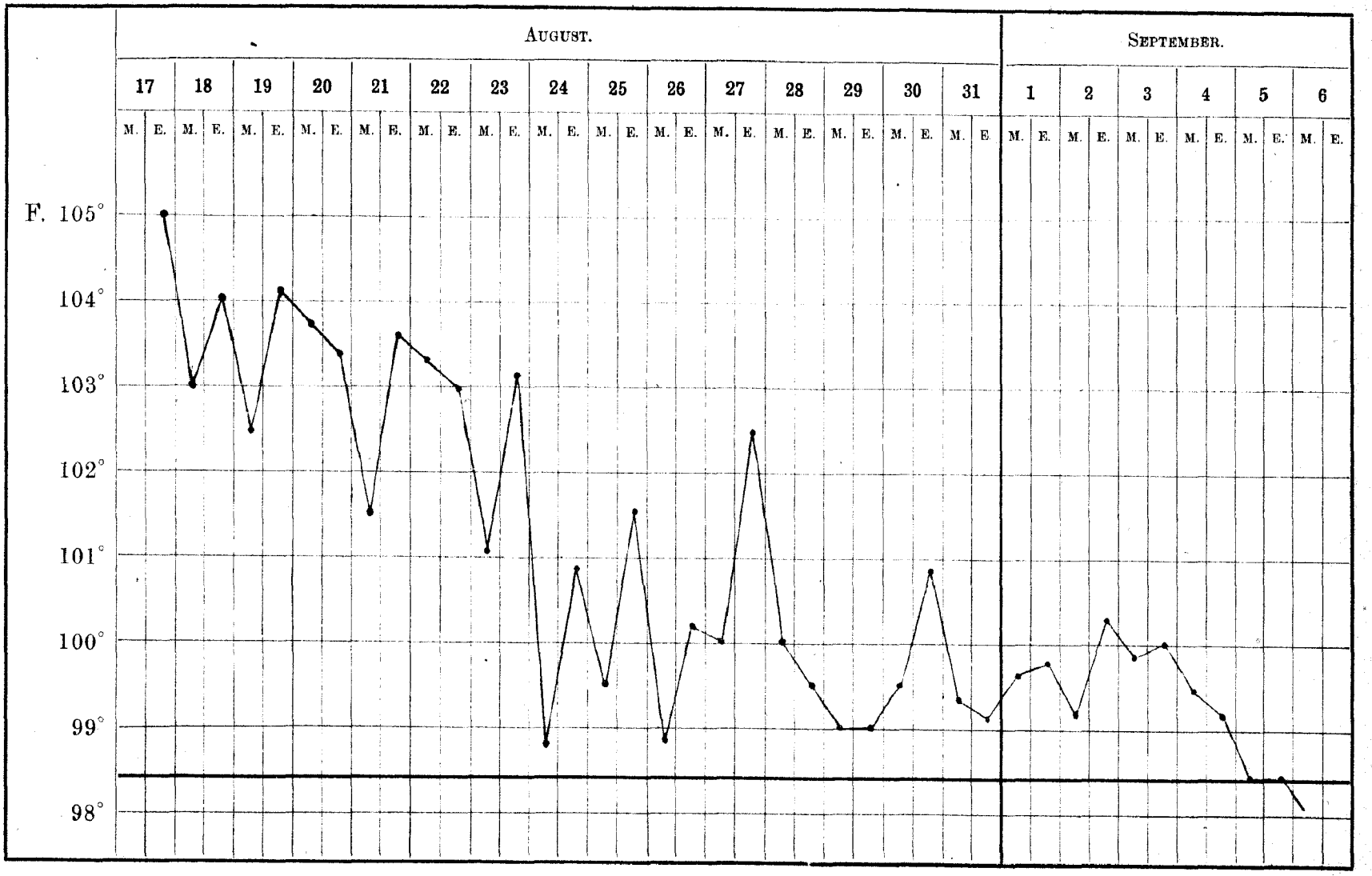
IN writing this Report I have kept in view the general features of the diseases met with here, rather than the minute details of isolated cases. When cases are reported under any heading, such as malaria, typhoid, and so on, it is with a view to illustrate general remarks or to bring out some point of special interest.

Appended are reproductions of (*a.*) skiagram of the Chinese woman's "small foot," and (*b.*) photograph and skiagram of an interesting case of acquired curvature with thickening of the upper end of the femur in a Chinese patient.

MALARIA.

In recent years and previous to 1898 the recognised form of malarial fever contracted in Hankow presented the clinical features of the benign tertian. The more severe forms that were then very occasionally seen had been contracted elsewhere, mostly in South China and in Formosa. Not long after my arrival in Hankow I remember having been called to a patient suffering from a pernicious attack of the algid type. The appearance of the patient closely resembled that of one in the collapse stage of cholera, and having seen a case of cholera not long before, this was naturally the first disease to suggest itself to me. The patient, however, who had been wrapped in blankets and surrounded with hot-water bottles by his own directions at the very outset of the attack, was just beginning to recover from the collapse, and found voice sufficient to give his own diagnosis. He had been some years in Formosa, and he had survived two similar such attacks. Luckily for both of us, he knew exactly what measures to adopt from the beginning, and it was a comparatively easy matter to "carry on."

In the beginning of 1898 operations involving extensive upturning of the soil were begun here; and during the spring, summer, and autumn of 1898 and 1899, though I have never again seen any pernicious attack of the algid type, the continued became the prevailing type of fever contracted here. The parasites found were small, pale, active amœboid forms, rods with rounded ends, and small, pale ring forms—all unpigmented, as a rule, though very rarely some contained a granule of black pigment. Often two or even three parasites were found in one corpuscle. The largest sizes seen rarely exceeded half the diameter of the containing corpuscle. In some cases, after one or two days treatment, shrivelled wormeaten-looking rods, apparently in various stages of disintegration, were seen still inside red corpuscles. The rods I have not seen figured, but the different amœboid forms and the pale rings exactly resembled those figured in various works as belonging to the æstivo-autumnal parasite. The crescent forms,


August.
September.
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6
M. E.
F. 105°
104°
103°
102°
101°
100°
99°
98°

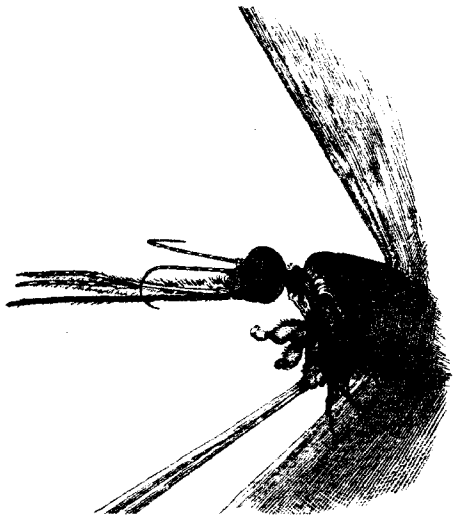


Fig. A.

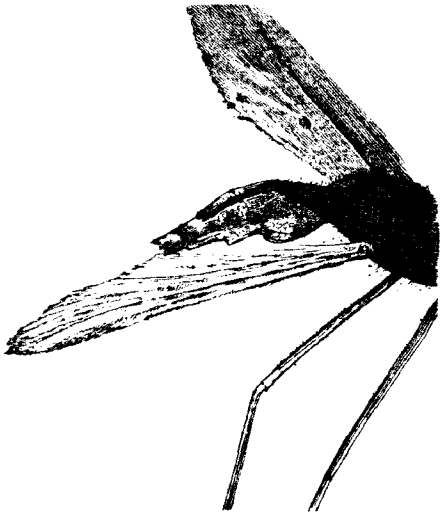


Fig. B.

however, characteristic of this infection, were never found except in two cases—one a foreigner, who probably contracted his illness elsewhere, and the other a Chinaman from a distance. As our observations (those of my brother and myself) were made nearly all of them on foreign patients who had quinine administered to them at a very early stage, this may account to a certain extent for the non-appearance of crescents, but can scarcely answer for their absence in every case. Admitting, too, that we have not looked for crescents systematically, we ought still to have come across some in our frequent blood examinations; and this absence of crescents makes us doubt the exact identity of the parasite found with the described forms of the æstivo-autumnal parasite. As to Anopheles, during the time that malaria was most prevalent here we did not know to look for them. This year there have been comparatively few cases of malaria. The season has been very dry, and there have been fewer mosquitoes of any kind than usual in Hankow. We have caught only two specimens of Anopheles, and those feeding on our own blood. Though these have been somewhat spoiled in the mounting (Canada balsam), the accompanying reproductions of microphotographs nevertheless show more than could be conveyed by any word-description of mine. Fig. *A* shows the head, proboscis, palpi, and antennæ of one of the specimens clearly, also part of the thorax and part of a wing (two of the legs have been broken off). Fig. *B* shows a whole wing, the caudal extremity, and part of the other wing of specimen 2. The very tip of the caudal extremity is not in focus, and the wing has lost many of its scales.

During 1898 and 1899 the most severe and the most persistent cases of fever were either those that at the start were apparently masked by a "touch of the sun," or those in which some definite complication existed—usually an aggravation of some previously existing weakness or lesion. In the first-mentioned group there had been exposure, and the initial symptoms were high temperature, dry burning skin, severe headache, usually pains in the back and bones generally, sometimes sighing respirations with more or less stupor.

Case 1.—In this case the temperature chart is rather interesting. The patient, though seen by one of us from the beginning, did not come under our charge until the 23rd August. His illness began suddenly on the 17th August. He had been exposed to the sun during that day. In the evening his behaviour was erratic, his skin was hot and burning, and his temperature was found to be 105° F. He was treated energetically for heatstroke, and so far as the case had gone, this was probably correct. The chart from the morning of the 19th to the morning of the 21st, and again from the morning of the 21st to the morning of the 23rd, shows two very symmetrical curves. On the 23rd parasites were found and quinine given. The temperature next day, in place of being 103° F. in the morning and 102°.8 F. in the evening, as suggested by a continuance of the curves, was 98°.8 F. in the morning and 100°.8 F. in the evening. On the 25th the upward limb of the curve was more or less maintained, and so again on the 27th; while on the 26th, as on the 24th, the curves were broken. On the 27th it appears to us that there was a tendency to begin an eight-day repetition of these curves. A dose of phenacetin was given and quinine again pushed. After this the temperature kept down, and there is little more to be said than that it did not reach and remain at the normal until eight days had passed.

Case 2.—In the next case that I will mention here the patient had also been exposed to the sun on a hot day in August. Almost immediately afterwards he complained of headache, pains in his bones, and a general feeling of malaise. His temperature rose rapidly, and during the first fortnight of the illness there was a marked tendency to hyperpyrexia, requiring strong measures to prevent it. Parasites were found together with free pigment, and quinine was given at first by the mouth and then hypodermically. Later on calomel purges were found to have good effect. To combat hyperpyrexia, frequent sponging, guaiacol inunctions, and sometimes phenacetin, antikamnia or antifebrin combined with caffeine, digitalis, and brandy, had to be resorted to. After inunctions or after antifebrin, perspiration would drench pyjamas, sheets, and bed; and yet in a short time the temperature would mount up again and similar measures have to be repeated while quinine was being pushed. At page 118 of *Tropical Diseases*, under treatment of hyperpyrexia in malaria, MANSON recommends "prolonged immersion in the cold bath, rectal injections of iced water, ice bags to the head," etc., while "at the same time quinine must be injected hypodermically or into a vein in full doses, and repeated every three hours until 30 or 40 grains have been given." "The cold bath," he says, "is absolutely necessary," while "in such circumstances antipyrin and similar antipyretics are worse than useless." These statements do not seem to make allowance for individual circumstances. In the present case the cold bath could not be borne. The patient had a decided dread of cold, and it is conceivable that, even with every precaution, congestion of internal organs might have followed its use. As to antipyretics, much probably depends on when and how they are prescribed and on the care taken after the dose has been given. This was a case of Scylla and Charybdis. The patient had to be watched night and day. He was stout, with a weak circulation and a tendency to venous congestions. Calomel probably helped us here. There was a circumscribed dull patch in one of his lungs which had been there for years—the result, I believe, of a pneumonia. How far these circumstances contributed to the severity and to the persistence of the case, I cannot say, though I incline to think that parasites may find shelter in weakened spots. The patient ultimately recovered perfectly. The temperature yielded about the 16th day, and reached normal limits about eight days later, though there were slighter rises for weeks after this; and it was not until some months after he left the Yangtze Valley that he got quite strong and well again.

Case 3 began after a fatiguing walk over marshy ground, under a hot sun, with insufficient protection. Prostration was very marked in this case, and the respirations were slow, shallow, and interrupted by frequent sighing. Fearing that the patient would succumb to the heat if kept long in Hankow at that season of the year, we had him removed to Kuling, a summer resort on the mountains behind Kiukiang. In Kuling, after being free from fever for a few days, he stopped taking quinine, and eight days later he had a very severe relapse complicated with acute dysentery. I went to Kuling when he was at his worst, and for a time quinine was given solely by hypodermic injection and alternated with guaiacol rubbed into the skin, while the dysentery was being further attended to. Many injections were made into the tissues between the shoulders without any untoward result; but, unfortunately, the same cannot be said of a trial made into the thighs. He was weak at the time, with little or no subcutaneous fatty tissue. The dose—15 grains of the sulphate dissolved with the aid

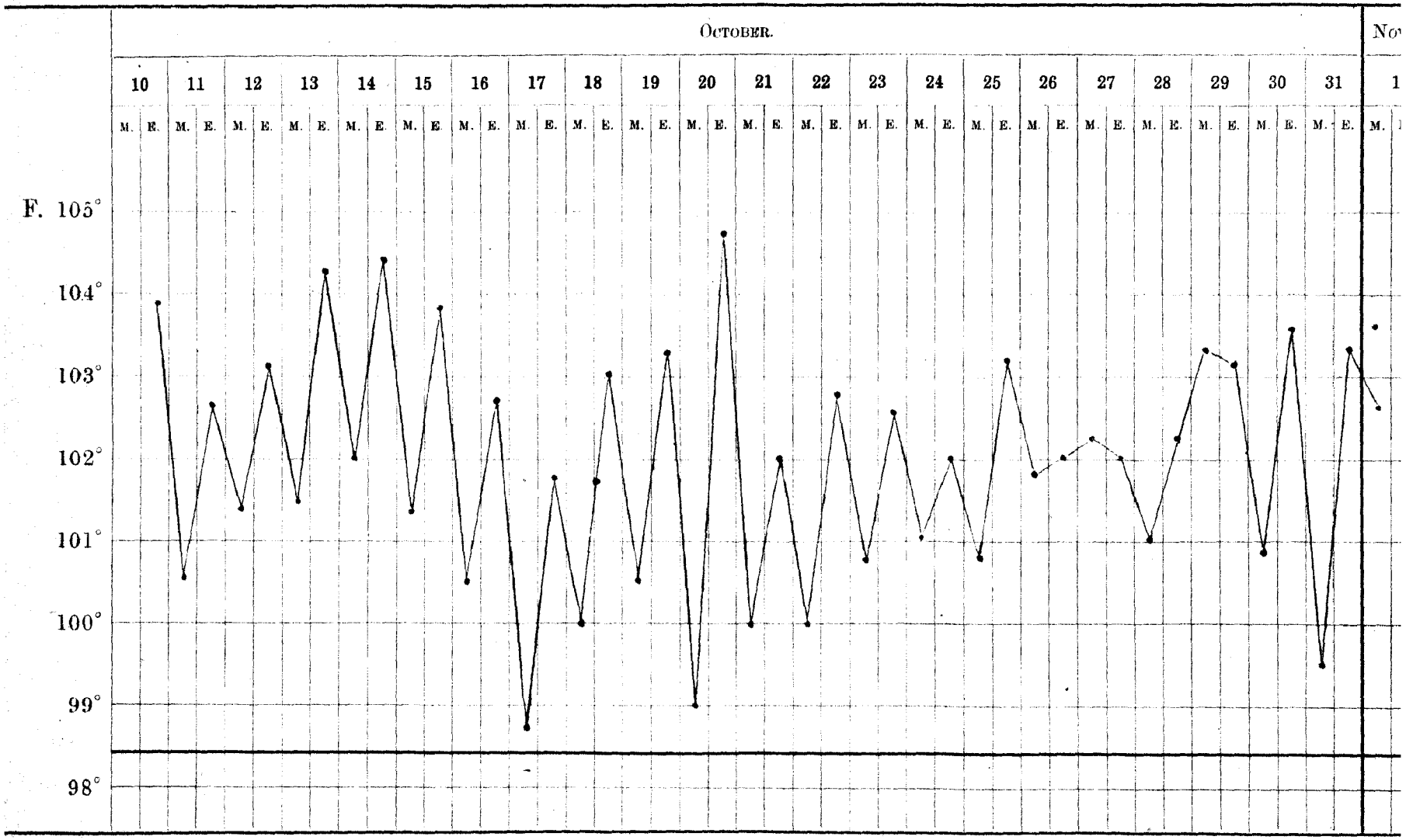
of hydrochloric acid in the way mentioned on page 114 of *Tropical Diseases* (MANSON) as used by BENSON—was divided between the two thighs. In one case the needle penetrated the deep fascia and the solution was injected under it; in the other the solution was injected into the subcutaneous tissue. Three days after this the thigh on the side where the needle had penetrated the deep fascia became swollen, extremely painful, and tender to the touch. Next morning I was horrified to find some fine crepitation over the swelling. His temperature at the same time had risen to nearly 105° F. Although I knew that I had been careful in using all antiseptic precautions, I now feared that in some way acute septic cellulitis had been set up. I was prepared to make free incisions into the swelling; but by evening the fever and alarming symptoms had greatly subsided. Fine crepitation now began to give way to larger bubbling sounds, and later on to a sort of gurgling. By this time fever had subsided and all general symptoms had improved. The evolution of gas, causing first fine crepitation, then bubbling, and lastly gurgling sounds, was most probably due to a purely chemical process—the contact of the unabsorbed free acid of the injection solution (free hydrochloric acid) with the alkaline juices of the tissues, and as the alkaline juices were renewed, the process lasted so long as there was any free acid left. Untoward results following the hypodermic injection of quinine will be referred to again below.

Case 4.—The patient in this case had been overworked and worried for some time previous to the onset of fever, and prostration with extreme mental depression were marked features from the beginning. When first seen his temperature was 104° F. There was nothing apparently in his various organs to account for this temperature. His lungs, heart, liver, and kidneys (from urine examined) were all healthy; his bowels were somewhat confined; his spleen could not be felt under the ribs; but microscopic examination of the blood revealed the presence of intracorpuscular parasites at different stages of development and some masses of free pigment. His bowels were relieved by a purgative, and quinine was given in solution in 15-grain doses at intervals of four and six hours. During the first week the temperature varied from 102° F. to 105° F. After this it improved, and as he complained bitterly of the effects of quinine, it was discontinued for a whole day. Following this he had two severe rigors with an interval of 12 hours between. During these rigors the temperature rose rapidly to over 105° F., and fell again for a short time after each rigor, with profuse perspiration, to nearly normal. Quinine was administered hypodermically—30 grains of the hydrobromide before and after the second rigor, and continued until, in all, 2 drachms had been given in 48 hours. This broke the fever; but four days later signs of pneumonia manifested themselves at the base of the right lung. From the base it rapidly spread throughout the whole of the lower lobe, and as the pleura became involved, hypodermic injection of morphine had to be given to allay the pain. Bloody sputum followed and continued for a fortnight. About a week after the onset of pneumonia in the right side, pleurisy set in on the left, and morphine had again to be resorted to. Though for a time the patient was in extreme danger, both the pneumonia and the pleurisy ran a favourable course and he made a very good recovery.

Case 5.—For several weeks this patient had had low continued fever—99° F. to 100° F. or, rarely, 101° F.,—and had been taking small doses of quinine from time to time. One day, on

examining the blood, I noted, in addition to some intracorpuscular parasites, an unusual number of small masses of free pigment; and remarked upon the possible danger of such a condition. Next day the patient's temperature rose to 103°.5 F., the mental condition became alarming, and for a few days after this the condition was critical. Guaiacol rubbings alternating with hypodermic injections of quinine, with a calomel purge to begin, was the treatment adopted; and after a few days improvement set in and recovery was rapid.

Case 6.—The patient in this case had suffered from what was apparently typhlitis before coming to the East; and the case illustrates the importance of attention to such conditions before determining one's fitness for residence in hot climates, and the gravity of organic disease of the bowel with malaria superadded. Arriving here in spring, his bowels gave trouble from the first. They were never regular, and the motions were generally loose, often offensive, slimy, and occasionally streaked with bloody mucus. He had a large appetite, and at his best a rather sallow complexion. By the end of the first summer he had malarial fever. His temperature to begin with used to rise every second day, then every day, and lastly it assumed a low continuous type. He picked up during the winter, but his bowels continued to give trouble from time to time, and thickening could be felt along the course of the colon, just over the cæcum. During the following spring low continued fever with exacerbations every second day began, yielded for a time to treatment, to reappear again later on. A change to the hills did good; but soon after his return to Hankow in early summer, fever set in again worse than before, and the bowels also began to give more trouble. He was recommended to give up China and go home; but this he could not well do. Another change to the hills did some good, but in September the bowel again gave trouble. On the 9th October a severer type of continued fever set in. Parasites and free pigment were found in blood drawn from the finger-tip. The chart gives the course of the temperature from 10th October to 1st November—the day of death. Thickening of bowel could be felt as before, but at the onset of fever was not markedly tender. As before, the stools were for the most part loose, dark coloured, offensive, sometimes glairy or with blood-stained mucus. Later on there was more tenderness in the neighbourhood of the cæcum, over the ascending colon, and paresis of the bowels with tympanitis followed. Early on the 31st October severe abdominal pain set in suddenly, and was followed by all the signs of acute peritonitis from perforation, and death ensued within 24 hours. When the temperature rose suddenly on the 20th from 99° F. to nearly 105° F., after several specimens of blood from the finger-tip had been examined, two parasites only were found. After death, blood from the enlarged spleen showed parasites in great numbers. The walls of the ascending colon up to 3 or 4 inches beyond the cæcum were very much altered. The lumen was small and tortuous, the mucous membrane much ulcerated, the walls much thickened at some parts and reduced to peritoneum at others. There were some adhesions to the abdominal peritoneum, and a perforation in one of the thin, deeply ulcerated portions. The appendix vermiformis and adjacent part of the cæcum were perfectly healthy. There was no sign whatever of any ulceration in Peyer's patches of the small intestine. The liver was not enlarged, but on the convexity of the right lobe there was a carbuncular-looking slough, projecting very slightly from the surface, fully 3 inches in diameter and about 2½ inches deep. During life the patient had not complained of pain in the liver region.


October.
No
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
1
M.
E.
F. 105°
104°
103°
102°
101°
100°
99°
98°

Case 7.—In several respects Case 7 resembled Case 6, just described. The patient had a sallow, muddy-grey complexion, like the last, and a tender spot in the colon, situated, however, over the beginning of the transverse colon, in place of the ascending colon, as in the last. There was paresis of the bowels with tympanitis in both. The stools in this case were at first watery, dark brown in colour, and very offensive; afterwards, slimy and undigested. The patient's tongue was furred and generally moist. His appetite (for slops) was good. At the onset of the fever parasites were found in numbers—amœboid forms, rods, and ring forms. The spleen was considerably enlarged, and remained distinctly palpable under the margin of the ribs when he left for home convalescent.

Untoward Results following the Hypodermic Injection of Quinine.—Under the paragraph headed "Hypodermic Injection of Quinine" in MANSON'S *Tropical Diseases*, the following sentence (page 114) occurs: "This method of giving the drug is sometimes a painful one, and may be attended with some risk of abscess; in the circumstances, such possibilities count for little." And in another paragraph (page 115) tetanus is mentioned as having been inoculated by the needle in giving hypodermic injections of quinine. It is not to results due to want of aseptic precautions, however, that I refer to here, no such having come under my notice. The word "abscess," as signifying a collection of pus, does not express the condition I have seen. Under Case 3 I have already described what in this instance (unique in my experience) took place after the injection of quinine solution under the deep fascia of the thigh. In the other thigh, where the remainder of the dose was injected into the subcutaneous tissues, these broke down for a considerable distance, and a portion of skin (about 1 by ½ inch) round the puncture became bloodless and pale, died *in situ*, but did not separate before the patient was sufficiently convalescent to be sent for a change and had passed beyond my observation. Four other cases, however, of degenerations similar to the subcutaneous and to the cutaneous of the last have come under my notice. When the subcutaneous tissue only was involved, a more or less diffuse swelling formed, which, if opened, discharged a clear, glairy fluid, something like the raw white of egg; when cutaneous, the portion of skin involved died *in situ*, remained white, and separated only after the lapse of weeks, leaving a painless, aseptic ulcer which, like the subcutaneous degeneration, exuded a clear, glairy fluid and took months to heal. Even after healing has begun, the newly-formed tissue is liable to break down again and again; but beyond the trouble of retaining suitable dressings, these sores do not inconvenience the patient very much. In the cases that happened in my own hands, a sharp burning pain was complained of at the time of puncture and during the injection of the first few drops, and the skin, if it subsequently died, became pale, blanched, and slightly raised, somewhat like a weal, round the needle. When in subsequent cases this happened, the needle was immediately withdrawn and a new site selected for the injection. It may be that some nerve twig connected with the nutrition of the part is penetrated by the needle or destroyed by the solution in these cases. If in other cases the preparation used and the quantity injected in one place may partly account for untoward results, I am inclined to believe that the site selected and the low vitality of the patient had more to do with them. I have frequently injected 15 grains of the hydrobromide or 10 grains of the hydrochloride by one puncture between the shoulders, and repeated this many times in the same neighbourhood (*i.e.*, between the shoulders), without any

untoward result; while a patient who was sent to hospital suffering from "typhus" had a troublesome necrosis of the skin on the leg at a spot where only 4 grains of the acid hydrochloride had been injected by his medical attendant before the diagnosis of typhus was made. When a patient is very weak, or weak and emaciated, subcutaneous injections of quinine into any part of the extremities are, I believe, apt to be followed by such untoward results as are here referred to. In all cases I would select the deep tissue between the shoulders and immediately dispel the quantity injected by careful rubbing and massage; or where the extremities alone were available, I would try the intravenous method with the special solution referred to on page 115 of MANSON'S *Tropical Diseases.*

Hæmoglobinuria as the result of large doses of quinine has not come under my notice.

Of *visual disturbances* I have noted three cases. In one, amaurosis was complete but very transient, having lasted not quite half an hour. In another, amaurosis was less complete, but lasted for some hours. In the third case the visual field was reduced to a small area; but this area, the area of central vision, remained clear throughout. This condition lasted for two days or more. The patient could see only a small part of one's face at a time, but that very clearly. In trying to read, he could see only a few letters of one word at a time; these appeared exceptionally clear and distinct—perhaps only in contrast to the surrounding darkness. All patients were taking quinine at the time. The two first mentioned were taking considerably larger doses than the third; and yet from its very transient nature the amaurosis in these cases may have been malarial and not the result of quinine. One of these patients had to get quinine hypodermically, and in large doses, for some time after this, but with no bad result. The third case looked more like the result of quinine, and yet he had taken only 10-grain doses of the sulphate in solution four times a day for three days when the effect was produced. The fever had then greatly subsided. He stopped taking quinine for a time, and on resuming it, took only 5-grain doses three times a day. Ophthalmoscopic examinations were not made, nor were minute tests of visual acuteness afterwards tried; but practically, at all events, no permanent ill effects were complained of in any of the cases.

TYPHOID (ENTERIC) FEVER.

Every year cases of enteric fever occur in the Concession. The sufferers are usually temporary residents, young adults, or comparatively recent arrivals from Europe. These are also liable to contract malaria; and since malaria has become more prevalent and of the continued type, the diagnosis of typhoid has become clinically more difficult. The microscope, though it usually settles the question of malaria, does not eliminate typhoid; and typho-malaria (*i.e.*, typhoid in a malarial) is becoming increasingly frequent. Now and again unmistakable and clinically typical cases of marked typhoid still occur, but mixed and often doubtful cases are on the ascendency. I speak within my own experience—not of the earlier days of the Concession, when, apparently, malaria and typhoid were even more mixed than now. One is sometimes apt to doubt the observer, when in reality the changing conditions may be responsible for some alteration in the aspect of disease. Even apart from probable advances in the science of medicine, I believe that in a few years, when works now in progress have

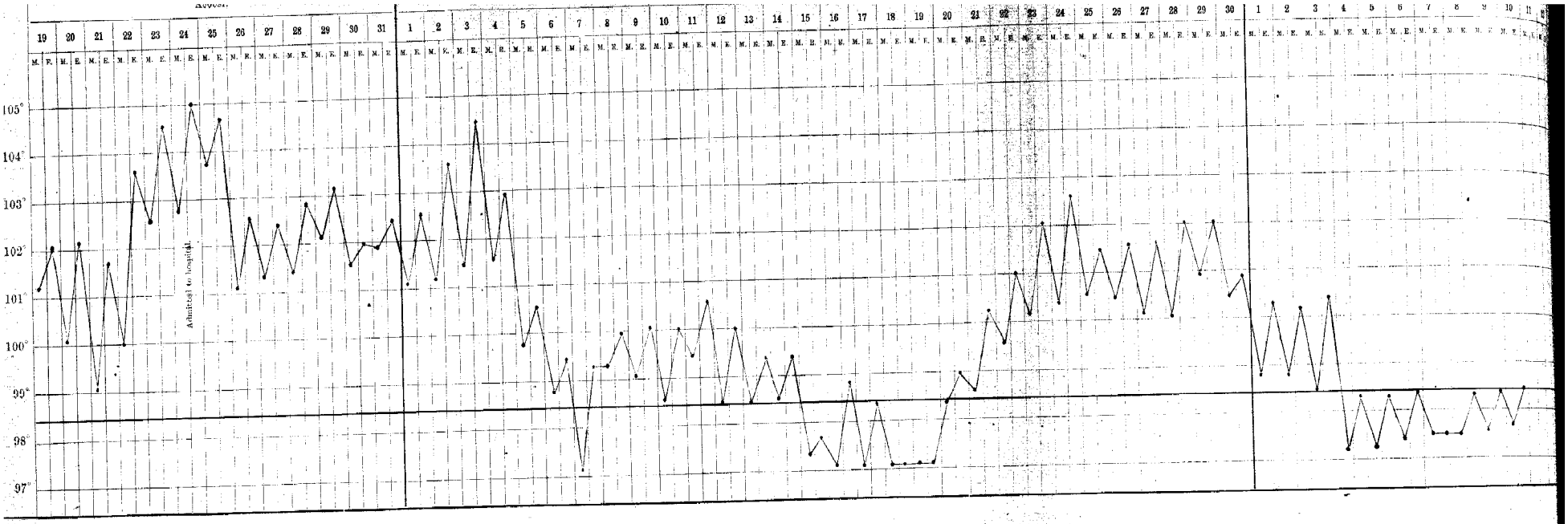
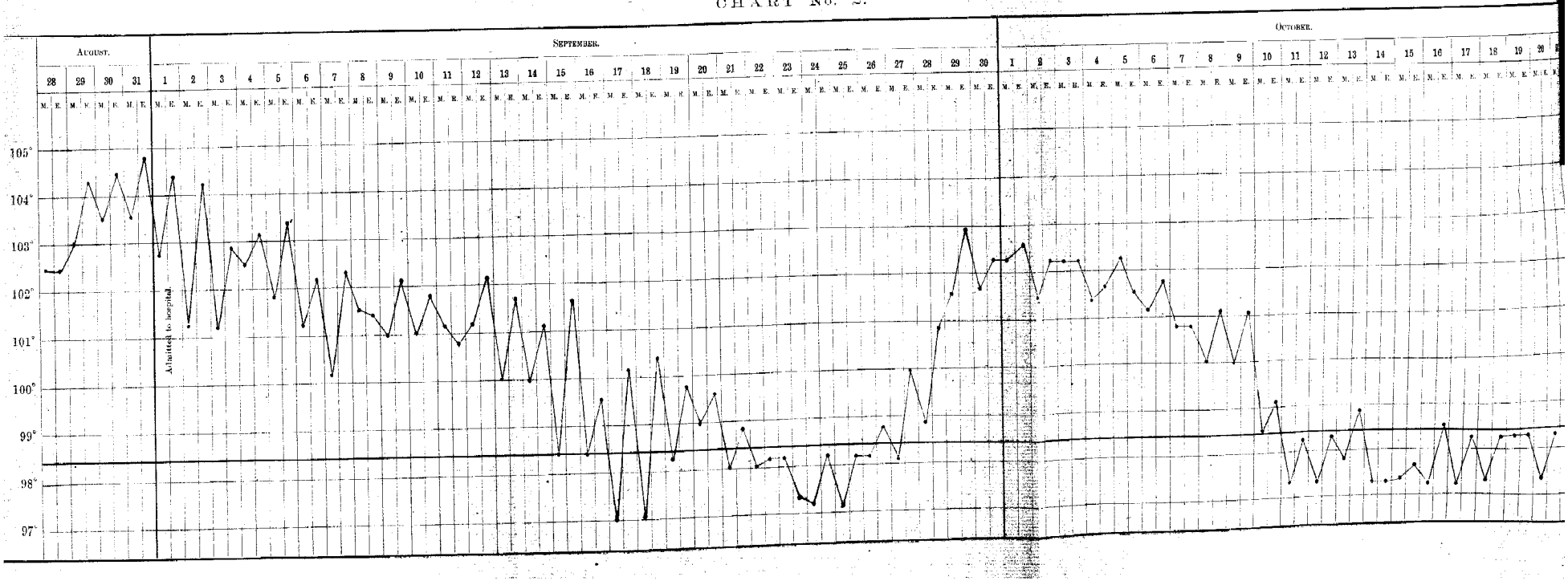

105°
104°
103°
102°
101°
100°
99°
98°
97°
Admitted to hospital.

CHART No. 2.


August.
September.
October.
105°
104°
103°
102°
101°
100°
99°
98°
97°
Admitted to hospital.

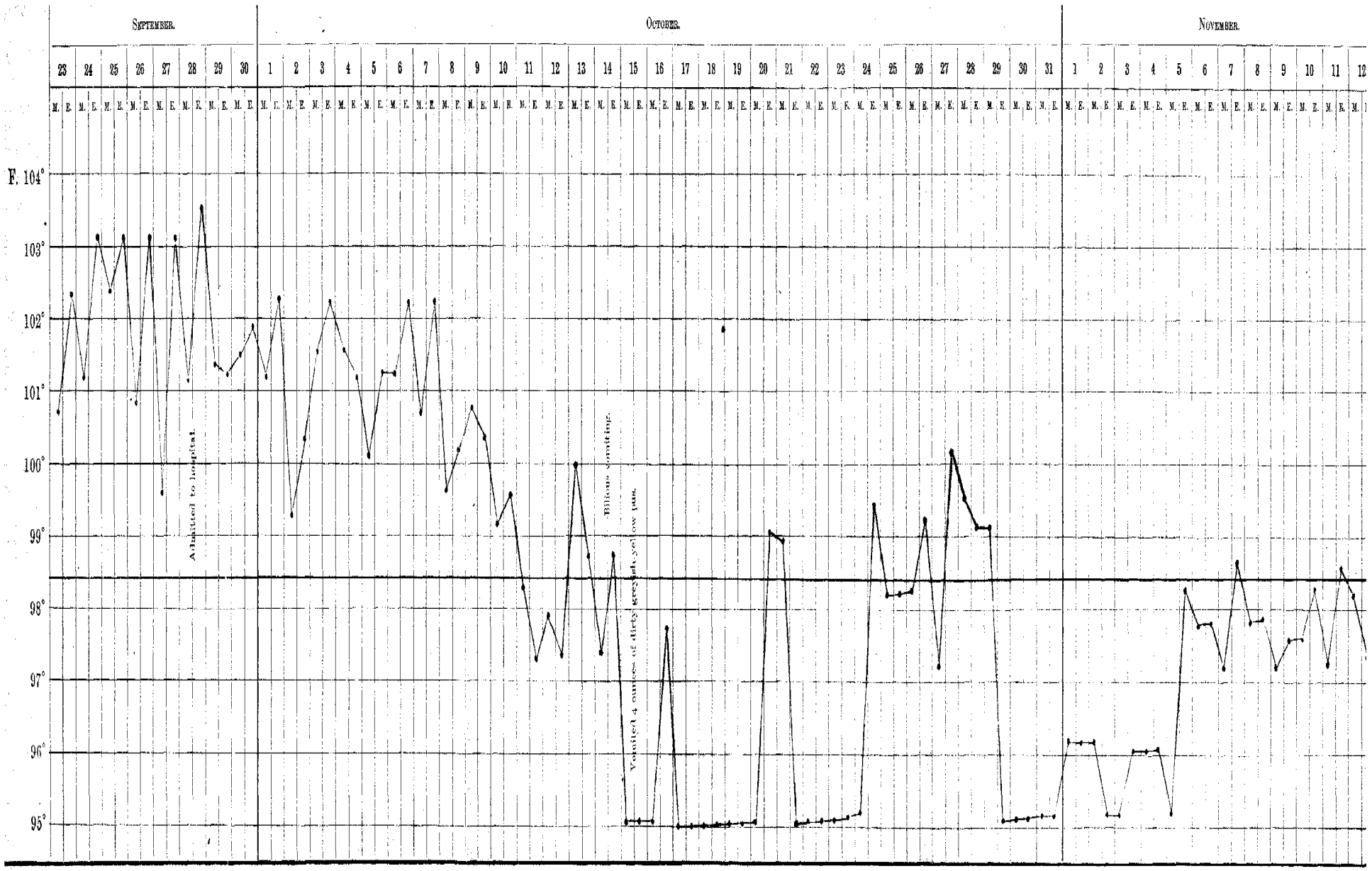
been completed and our surroundings change, the difficulties I refer to here will have vanished. In some doubtful cases I have had specimens of blood tested for Widal's reaction at the Pathological Laboratory, Shanghai, by the courtesy and kindness of the Medical Officer of Health in charge. But Widal's test is not absolute. Resting as it does on inductive reasoning, since class "typhoid" is small compared to class "not typhoid," it is evident that in any given case the negative conclusion ("not typhoid") would be the first to carry weight—provided, of course, that all conditions (period of illness, dilution of serum, age and purity of culture, etc.) had been fulfilled. The positive conclusion, even if supported by what, after all, is only partial analogy, viz., the action of serum of immunised animals on the bacilli against which they have been rendered immune, cannot be said to be more than strongly presumptive. There are some cases where one cannot afford to dispense with any aid to diagnosis. Taken by itself, "Widal" may mislead; but in conjunction with clinical symptoms and signs, it is often of the utmost importance. About three years ago, when the severer forms of malaria seen here had been contracted elsewhere, I sent to the Pathological Laboratory, Shanghai, two specimens of blood to be tested for Widal's reaction. One of these specimens was taken from a patient with high fever who had just been brought to hospital from an ocean steamer in port; the other from a patient who had been in hospital for some time and who, judging from the clinical symptoms and signs alone, was evidently suffering from a severe attack of typhoid. On the same day that I sent the specimens I examined the new patient's blood for evidence of malaria; and having found free pigment and parasites in abundance, I treated him energetically with quinine, while at the same time, in accordance with invariable practice in unproved cases, I observed every precaution usual in typhoid. The answer about the Widal reaction reached me by return steamer from Shanghai (six days after I had despatched the specimens); but by this time the new patient was free from fever and was feeling well. The answer, nevertheless, was that the first specimen as well as the second gave marked Widal's reaction. The patient was a youth on his first voyage from England. He had had fever for only two days before he was brought to hospital. There was no history of previous typhoid. The ship had come to Hankow direct from Aberdeen Dock, Hongkong, where she had lain for 10 days or more, and patient stayed on board the ship while she was in dock.

The following cases, whose temperature charts are introduced here in parallel, are mentioned chiefly in relation to Widal's reaction. The charts start from the day on which the patient in each case reported himself ill, and the dates refer to the days of the month. Both patients were in hospital at the same time.

On the 4th September (*i.e.*, on the eighth day of fever for No. 2 and on the 17th day of fever for No. 1) specimens of blood were taken and sent to the Pathological Laboratory, Shanghai, to be examined for Widal's reaction. Arriving there on the 7th September, the examination was made and the report sent off that same evening and reached me on the 11th. In each case the report was "No typhoid reaction." Clinically, however, No. 1 had then all the appearance of a typhoid patient. He had had headache during the first week of illness; his pupils were dilated by the second week; his tongue, tremulous, dry, and brown, was now (by the time the answer came) becoming moist and cleaning from the edges; his pulse, at first soft

and comparatively slow, was now easily excitable and dicrotic; his abdomen somewhat distended and tympanitic, with tenderness in the right iliac fossa; there was marked muscular wasting, tenderness on grasping the adductor group of muscles, and so on. The clinical picture of No. 2, though not so markedly, still strongly suggested typhoid. Not satisfied with the report in these cases, I took fresh specimens of blood on the 13th September. These reached Shanghai on the 16th, and the report reached me on the 20th. This time the report was that No. 2 gave the typhoid reaction, but that No. 1 gave no reaction. The clinical picture of case No. 1, however, was too convincing to be annulled by these negative reports; and when the relapse marked in the chart set in, I wondered if the negative reaction could be explained by supposing a want of formation of antitoxin (which might also be the cause of clumping) in those cases that relapse. In reply to a query on this point, Dr. STANLEY wrote: "I have not observed any absence of the Widal reaction in cases which have relapsed. In one case which had a relapse which I remember distinctly, the reaction was given early in the case. Your explanation, that it might be due to want of formation of the agglutinating material which may also be antitoxic, is very interesting, and I will look out for confirmation." Following this (as will be seen from the chart), No. 2, which gave the reaction on the second occasion, had a relapse similar to No. 1. If, therefore, we are to suppose a want of formation of antitoxin in those cases that relapse, we must separate this antitoxin from the "agglutinating material" on which we may suppose the Widal reaction to depend; and if one may extend such a hypothesis, the cases here referred to may further suggest that, though the two substances may usually be formed together in proportionate quantities, this need not always be so. This latter supposition would point to the possibility of failure to obtain the Widal reaction in certain extreme cases; so that, quite apart from errors in technique, even the negative conclusion, which with all conditions satisfied we saw would be the first to carry weight, might occasionally mislead.

Referring to recent cases only, since the beginning of August of this year we have had under treatment 10 Europeans and one Japanese suffering from typhoid fever. Of these, eight have been from men-of-war in port, one from the neighbourhood of Hankow, and two are members of the community. Of those from the men-of-war, three had contracted the disease before their arrival in Hankow, while the remaining five contracted it here. Of the 11, eight have recovered, one (the Japanese) died, and two are still under treatment. About the eight that recovered there is nothing special to remark, except that one case was very protracted. During the second week his temperature reached 105° F., and it did not reach normal until the end of the fifth week. The patient was delirious, and passed his motions unconsciously for the greater part of the time. For a week or 10 days after convalescence set in he was feeble-minded and childish, but contented and easily managed. Later on, recovery was rapid and complete. The case of the Japanese that died deserves mention. Until the temperature reached normal, at the end of the fourth week, everything seemed to be going on satisfactorily. Throughout the period of fever there was nothing special to remark; but as soon as his temperature reached normal, which it did at the very end of the fourth week, the patient, who was till then quiet and obedient, became wildly excited, threw off all bedclothes, refused food, asked for sugar only, and insisted on smoking cigarettes. For some nights he shouted at the pitch of his voice most of the time, and was kept in bed with difficulty; while during the day


September.
October.
November.
F. 104°
103°
102°
101°
100°
99°
98°
97°
96°
95°
Admitted to hospital.
Bilious vomiting.
Vomited 4 ounces of dirty green yellow pus.

he was usually in high spirits, chatted, sang, smiled, was very friendly, but politely declined everything except sugar and cigarettes. After a time he became more subdued, depressed, and partly comatose; while at times he could now be induced to take a little nourishment. His temperature during the first two weeks of this period was practically normal, while during the third week it varied from 98° F. in the morning to 101° F. or 101°.5 F. in the evening, and then for two days before death it remained at 97° F. Death took place quietly at the beginning of the fifth week of this period, *i.e.*, between eight and nine weeks from the beginning of his illness. He was extremely emaciated before death took place. There was no postmortem examination.

One of the cases still under treatment is complicated and peculiar. The temperature chart is introduced here *in extenso*. The patient, a strong adult, of somewhat plethoric habit, was admitted to hospital and came under our charge on the 28th September. He was then cyanosed, the heart sounds were weak, and his pulse was feeble but regular. Cerebration was slow. It took him about 30 seconds to understand and begin to answer the simplest and shortest question. His conjunctivæ were somewhat jaundiced, his pupils equal and normal, and he had twitching of the wrist tendons. During the week (the second of his illness) he had frequent fluid bilious stools, his tongue was dry and parched, cerebral sluggishness increased, twitching of wrist tendons continued, cyanosis remained marked and the conjunctivæ slightly jaundiced. No spots were seen, nor was any decided tenderness in the right iliac region elicited. Widal's reaction was positive. During the fourth week his temperature was for the most part very subnormal. His pupils were now widely dilated, he had low muttering delirium, dry tongue, and very feeble intermittent pulse. On the 14th October (16 days after admission to hospital) he had, for the first time, much bilious vomiting; and on the 15th he vomited 4 ounces of dirty greyish-yellow pus—sweet and with no trace of blood. After this retching and vomiting ceased. From the 15th to the 20th his temperature, taken frequently in the axilla, registered 95° F. He was cold and collapsed, his nails were blue, his face cyanosed, and his pulse at times was scarcely perceptible at the wrist. When his temperature rose again he became excited and noisy. This was followed by another collapse. At present his temperature keeps within fairly normal limits. From the end of the fourth week onwards his stools have been fairly normal, though more often than not they have been passed unconsciously. His pupils are still very widely dilated; he is still dusky; his pulse, though better than it was, is still very feeble; and his mental condition cannot be said to have improved.

Small-pox.

Since spring of 1898 only three foreign small-pox patients have been treated here. One case was discrete and two were mild confluent; none hæmorrhagic. All made good recoveries.

Typhus Fever.

During late spring and early summer of 1898 three foreign patients were admitted to the wards for infectious diseases suffering from typhus fever. All were severe cases. In two instances, both debilitated subjects, it proved fatal. The third patient, though he recovered, was

at one time almost despaired of. Since 1898 there has been no case of typhus fever among foreigners here.

Chicken-pox and Measles.

These are mentioned merely to say that there have been cases of both among the foreign children in Hankow during the period under review.

Heatstroke.

Every year, in addition to cases of heat exhaustion and of sun traumatism, there occur, during the most trying—not necessarily the hottest—week of the summer, two or three cases of what for the sake of distinction, as well as with the idea of its being a special disease, has been termed siriasis. From the 5th to the 10th August of this year three such cases occurred.

Case 1.—I was called for the first time to see this patient about 3.30 A.M. on the 5th August. He was then totally insensible, cyanotic, and breathing stertorously with the rattle of mucus in his trachea. His conjunctival reflex was in abeyance, his conjunctivæ suffused, and his pupils dilated. A large, offensive motion had been passed unconsciously in bed. His skin was pungently hot. His pulse at the wrist was almost imperceptible. His temperature in the axilla registered 110° F. Death took place in about half an hour from the time I first saw him. The victim in this case was a short-necked, stout, somewhat plethoric, fair-skinned man, of about 35 years of age. He had lived in the East for nearly 12 years, but for the most part in the North. He came to Hankow in December last, and had never been on the sick list. I learned afterwards that on the evening of the 3rd August he was irritable and worried, and that he got no sleep that night. On the evening of the 4th he came home feeling tired and out of sorts, had no appetite, and went to bed early, attributing his feelings to the previous restless night. At about 3 A.M. a friend in an adjoining room had his attention drawn to patient by unusual sounds proceeding from his direction, and on seeing his condition immediately sent for me.

Case 2.—The patient in this case was dark complexioned, neither stout nor thin, and not plethoric. He was a missionary. While sitting at table with others in the same mission, about 8 P.M. on the 8th August, he suddenly became very excited, rose from table, stamped round the room, then rushed upstairs. On reaching his bedroom he sank unconscious on his bed; and when I saw him, about 20 minutes later, he was quite insensible, breathing stertorously with the rattle of mucus (as in the other case), cyanotic, and with a temperature of 109° F. in the axilla. 10 minutes later, notwithstanding efforts to reduce his temperature, the thermometer in his axilla registered 110° F. Breathing became less rapid, mucus increased, the skin assumed a dusky leaden hue, and as death took place frothy fluid flowed from his nostrils and mouth.

Case 3 occurred on the evening of the 10th August. The patient was a stoker on board a ship in port. The case was much the same as those described, only death did not take place until three or four hours from the commencement of the attack. When brought to hospital he was quite unconscious, breathing stertorously, and his temperature in the axilla was 110° F. By the application of ice, bath, etc., his temperature was reduced to under 105° F., but

with no improvement in general condition; and he gradually sank and died like those above described.

These three cases are given somewhat in detail with the object of showing that what has been called siriasis is met with in Hankow, 600 miles up the Yangtze. The Yangtze Valley might therefore be included in the list of endemic areas of this disease. I was told by our Chinese assistant at hospital that during the same week many Chinese coolies died in the same way. None of these were brought to hospital, however, and I did not see any of them myself.

In addition to the cases described above, three other foreign patients died in Hankow during the month of August, death being due in each case to causes associated with high atmospheric temperature, and all to be classed under the general term "heatstroke."

Subjoined is an extract from the Customs meteorological tables, giving the thermometric readings for each day in August 1900:—

Day of Month.	Thermometer.				Day of Month.	Thermometer.				Day of Month.	Thermometer.			
	Dry Bulb.	Damp Bulb.	Max.	Min.		Dry Bulb.	Damp Bulb.	Max.	Min.		Dry Bulb.	Damp Bulb.	Max.	Min.
1	82	81	95	71	12	94	92	102	85	22	84	81	93	73
2	89	89	95	76	13	95	90	100	84	23	87	80	95	74
3	92	90	96	79	14	96	92	101	85	24	83	76	95	74
4	93	92	98	82	15	95	90	102	85	25	85	76	96	72
5	88	87	99	84	16	96	92	101	84	26	86	74	96	71
6	88	85	93	80	17	92	86	100	85	27	87	74	96	71
7	93	89	98	80	18	97	86	102	84	28	84	74	95	70
8	90	86	101	81	19	88	81	100	78	29	81	77	90	73
9	95	90	100	79	20	84	72	97	74	30	92	85	93	75
10	98	91	102	93	21	85	77	92	74	31	95	83	96	79
11	99	90	102	85										

Total rainfall during the month: 0.5 inch; hours 3.

Diseases of Abdominal Organs.

Of the minor bowel disorders it is unnecessary to enter into details. Entozoa and the milder forms of ptomaine poisoning are frequent. Of *Entozoa*, by far the most frequent (almost the only form met with among Chinese patients) is ascaris lumbricoides. Enough has been written about them—the manifold symptoms they give rise to, their occasional migrations, and their treatment by santonin. In Chinese patients in hospital we have frequently seen them escape through abscesses in the groin or in Scarpa's triangle; once, through a sinus in the back which led down towards the lower end of the kidney on the right side; and once into the bladder, in a female patient, when symptoms of the most alarming character were set up, to disappear again immediately on the worm being expelled through the urethra. During the summer and autumn months symptoms of acute and subacute dysentery are very common concomitants of lumbricoides; so that in the dispensary department of the hospital for Chinese, a preliminary dose of castor oil and santonin is almost invariably given to patients who at this season present themselves with symptoms of dysentery. In the great majority of such cases

nothing further is required, as the dysenteric symptoms subside on the expulsion of the worms. In this connexion I may say that on three occasions, in foreign patients, I have seen a mild form of dysentery follow the exhibition of santonin for worms—twice when no worms were passed, and once when one only came away. The dysenteric symptoms in these cases may have been due to the irritating effects of the drug itself, may have been merely coincidence, or may have been due to the struggles of lumbricoides—for even in the cases where none were passed, it is by no means certain that none were present in the bowel. Microscopic examination of the stools for ova might have settled this point.

In foreign children here, I have seen, though rarely, the common thread-worm (Oxyuris). In adults from Northern Asia I have frequently seen Tænia mediocanellata, and in Japanese patients also Tænia solium; while in examining fæces for the ova of round worms I have come across those of Trichocephalus dispar. For Tænia, the plan of treatment recommended by DAVIDSON in his text-book of tropical diseases, viz., of giving three doses of the liquid extract of male fern of ½ drachm each at intervals of half an hour, the third dose being accompanied by a purgative (5 grains of calomel), has in every case been successful in expelling the head. Mild starvation during the previous day, a dose of castor oil overnight, and a copious soap and water enema in the morning, just before administering the remedy, renders the search for the head by no means troublesome or disagreeable.

Cholera nostras is common among the Chinese, and occasionally attacks foreigners also during the summer months—due to indiscretions in diet, chiefly from eating raw fruit or raw vegetables. Water melons as sold in the Chinese streets—cut up in slices, exposed, and covered with flies—must be a common cause among the Chinese coolies, who buy and eat what the flies leave.

True Cholera has not visited Hankow for several years. As mentioned in a former Report, it, together with typhus fever, visited this port after the Chino-Japanese war, being probably introduced by disbanded soldiers from the North. Happily, it now seems to have died out.

Dysentery.—Regularly, towards the end of the hot weather and the beginning of autumn, cases of dysentery occur in the Concession. As a rule the cases are not severe, and usually yield readily to treatment. In all, strict rest in bed is enjoined, while hot fomentations or turpentine stupes are applied over the whole abdomen and well round the loins. Beef steaks are generally ordered for the patient to chew—to swallow the juice and pulp, but to reject the tougher fibrous part. When, at the commencement, palpation and percussion show the bowel to be more or less loaded, the medicinal treatment selected is usually the sulphate of soda combined with a little belladonna and spirits of chloroform. In some severe cases the ipecacuanha treatment (the powdered root) has acted like a charm. Under Entozoa I have already referred to the treatment of dysenteric symptoms in Chinese dispensary patients by castor oil and santonin.

Several cases of chronic dysentery have made good recoveries after about a fortnight's treatment with sulphate of soda or Carlsbad given in drachm doses (in warm solution), in the morning, every half-hour, until five or six doses have been taken, and followed, at noon, in the

evening, and at bedtime, with 10-grain doses of salol. During the treatment the patients were kept strictly in bed and dieted. All came from a distance, and the influence of change must not be overlooked. Two cases had had dysentery for eight months. In each case the attack began acutely and passed into a chronic form, with two or three stools per day, and these invariably accompanied by the passage of mucus and blood. The fæcal part of the stool was dark in colour, had an offensive odour, and was mixed with undigested food. In both cases there was considerable bodily wasting and feebleness. One was treated with sulphate of soda and the other with Carlsbad. Both did equally well, and left hospital about the end of three weeks feeling well and apparently cured. One I saw a year later; he had had no recurrence and was perfectly well. The other I have not heard of since he left hospital.

Two cases with dysenteric symptoms deserve notice on account of the peculiar form of parasites found in the stools.

Case 1.—An adult male; had been suffering from diarrhœa for some days before dysenteric symptoms of a subacute character set in. Besides mucus and blood, numerous white bodies, shorter and thicker than the ordinary Oxyuris, were found wriggling in the freshly-passed stools. The microscope showed those to be the larval forms of some insect. After castor oil and several doses of salol the patient speedily recovered.

Case 2 occurred in a male child, between 3 and 4 years of age. The symptoms, to begin with, were those of acute catarrhal dysentery high up in the bowel. In spite of treatment, these symptoms continued in a less acute form, but with acute exacerbations, for upwards of two months. My object in mentioning the case, however, is to note that on examination with the microscope groups of small bodies were found in abundance in the mucus portion of the stool. Figs. 1, 2, and 3 show the appearances in different focal planes as seen under objective 7 with eye-piece 2 (LEITZ). They are from 35 to 40 mm. in diameter (about five times the diameter of an ordinary red blood corpuscle, or a very little larger than the ova of Tænia solium). Their shape is not quite spherical, one of the would-be hemispheres being pyramidal, and from the apex of the pyramid three lines or slits are seen to radiate, as in Fig. 1 *a* and *b*. The capsule, or shell, is fairly thick, with an outer portion of honeycomb pattern and of a yellowish colour. Selecting one with the apex pointing upwards towards the cover-glass, and focussing it in different planes from above downwards, the appearances seen are, first as in Fig. 1 *b*, where the radial lines or slits stand out clearly; next as in Fig. 2, where a nucleus or yolk is seen slightly pinkish in colour; and lastly as in Fig. 3, where the honeycomb pattern of the further shell-wall comes into view. These bodies have all the appearances of ova, the

Fig. 1.


Fig. 2.

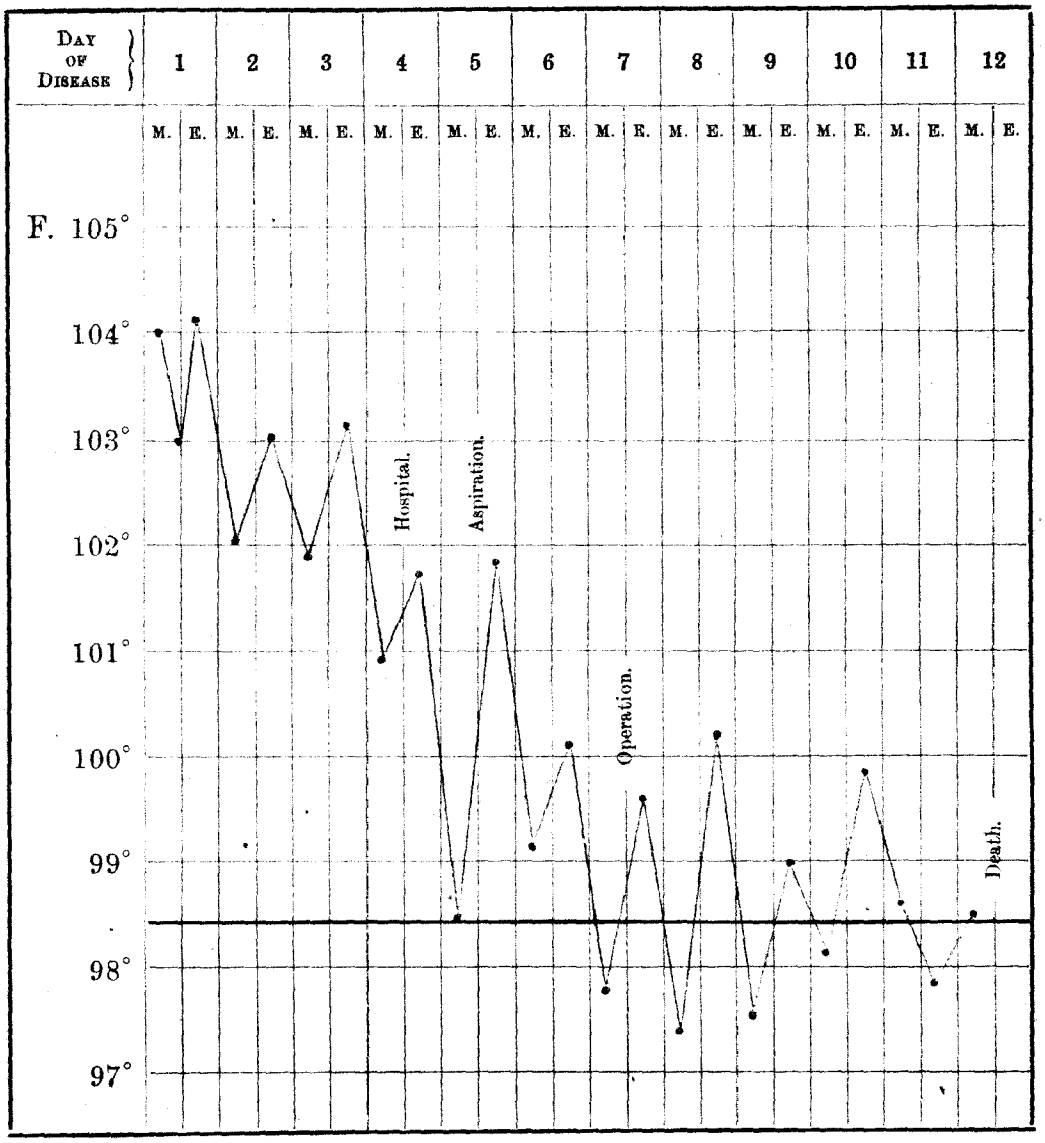

Fig. 3.

radial slits being analogous to the operculum of certain other ova. In none of the literature at my command could I find a clue to their origin; and the above particulars are now given

in the hope that they may be identified. Among other drugs, thymol was given; but nothing corresponding to an adult worm was ever seen. In addition to these bodies, which were repeatedly seen in great numbers, I noted others of a different kind; but as the specimens of these latter have quite spoiled, I can only say from memory that they were spherical bodies, apparently homogeneous and smooth, except for long conical spikes sticking out from the surface, three or four in number. These were seen in one or two specimens only of the clearer mucus portions of the stool. Having failed with the ordinary anti-dysenteric remedies and with anthelmintics to effect any permanent improvement in this case, I tried "Peter Sys's Specific." This was followed by speedy improvement, ending in complete recovery.

Case of Acute Dysentery with Concurrent Abscess of the Liver, and Fatal Hæmorrhage from the Bowel.—The patient was sent to hospital here by his medical attendant suffering from severe acute dysentery, enlargement and tenderness of liver, and fever. He had been sick for six or seven days only, but was extremely weak and collapsed on admission. Taking into consideration the short period of illness, the urgency of the dysenteric symptoms, and the patient's enfeebled state, operative interference was deemed inadvisable. An improvement in his general condition was noticeable after two days treatment; and just as we entertained hopes for his recovery, a sudden profuse hæmorrhage took place from the bowels. This recurred five or six times, despite our efforts to arrest it—about a pint of thick clotted blood coming away on each occasion,—and resulted in death. The portal system was quite emptied, the bowels exsanguine, numerous large ulcers were found in the cæcum and ascending colon, and a large abscess, still intact, in the liver. The patient had arrived from Europe only three months previously and had worked hard all the summer. This was his first sickness. A point of interest, apart from the very acute character of the dysentery and the profuse portal hæmorrhage, was the rapidity with which the liver abscess must have formed.

Case of apparently Mild Dysentery followed by Gangrene of the Liver.—I saw this case for the first time in hospital. He had a history of jaundice three years previous to this, when in Ceylon, and was on the point of being invalided home when he recovered. The surgeon who was attending him for his present illness said that about two weeks before he was sent to hospital he had had a mild attack of dysentery, from which he apparently completely recovered within a few days, passing normal stools after two days illness. Not many days after this, while playing tennis, he was suddenly seized with acute pain in his right side, which caused him to leave off playing and to lie down on a long chair. That same night, while on duty and exposed to stormy weather, he had a rigor, which was followed by a temperature of 104° F. The accompanying chart gives his temperature from this time onwards. He became flushed and restless; had a disinclination for food; complained of headache and of pain in the right side and in the right shoulder. The liver was very tender all over to percussion and to palpation. No enlargement could at this time be detected. His stools were liquid, dark brown, and bilious, but contained neither blood nor mucus. The abdomen was slightly tympanitic, but nowhere tender on palpation. On the fourth day he became delirious for an hour or two, and it was on this day that he was admitted to hospital. On the following day the aspirating cannula was introduced in one or two directions, but no pus was found. Only a small piece of evil-smelling slough was brought out in the cannula; and


Day of Disease
1
2
3
4
5
6
7
8
9
10
11
12
M.
E.
F. 105°
104°
103°
102°
101°
100°
99°
98°
97°
Hospital.
Aspiration.
Operation.
Death.

we decided to wait, in the hope of the slough breaking down into pus. Two days later, dulness having extended upwards very considerably, the aspirator was again used, and putrid serum came away. An incision was now made down to the liver. A large quantity of evil-smelling, hazy, slightly blood-stained serum at once flowed from the wound. The forefinger introduced into the wound sank with very little effort into soft, friable, sloughy liver substance. Some of this material was removed along with the serum, a tube was introduced, and the cavity was douched with warm chinosol lotion until the returning fluid no longer smelled putrid. After the operation the patient remained quite free from pain in the side. The putrid smell was kept under by douching with chinosol solution twice daily. After five days of low fever, drenching sweats, and nausea, the patient succumbed—death being preceded by uncontrollable hiccough terminating in the vomiting of large quantities of grass-green fluid of creamy consistence. At the autopsy, the right lobe of the liver was found to be much enlarged, and from one-half to two-thirds of its bulk was a gangrenous mass, with a spreading boundary showing as an irregular, reddish band on the surface between it and the healthier portion, which, however, near its under surface, contained a putrid, sloughy abscess separated by a thin partition from the advancing gangrene. A putrid thrombus filled the right branch of the portal vein. At the junction of the right and left lobes, above and behind the gall-bladder, was an old encysted abscess, about the size of a walnut, containing greyish yellow, sweet-smelling pus. Between the liver and the diaphragm was a large, smooth-walled cavity, completely shut off; and in the substance of the diaphragm itself were three sloughy abscesses like flattened gooseberries. The stomach was enormously dilated, and filled with the same sort of grass-green material as had been vomited before death. There were numerous ulcers with diphtheritic, washleather-looking bases in the cæcum and ascending colon, from $\frac{1}{8}$ inch to $1\frac{1}{2}$ and 2 inches in diameter, the three largest ones being situated in the ascending colon, near its junction with the cæcum.

Reviewing the facts of this case—

(1.) It would appear (*a.*) that the encysted abscess probably dated from the time when he was about to be invalided home from Ceylon in 1896, and in its active state, on account of its position, was the cause of the jaundice from which he then suffered; and further, that this illustrates the fact that a small abscess of the liver that has become quiescent and encysted is compatible with an active life; (*b.*) that the cure of the dysentery at the beginning of the present illness was also only apparent; and that extensive ulceration of the bowel may exist with little or no local symptom or sign.

(2.) As the liver tissue has its nourishment supplied by the hepatic artery, it is to be regretted that at the autopsy the branch of the hepatic artery going to the right lobe in this case was not searched for and examined. There could scarcely have been sufficient pressure at the hilum to compress the artery so as to obliterate its lumen; and if a clot had been found, it would in all probability have been a thrombus near the hilum formed by extension of inflammation from the portal vein, by which channel the poison must

originally have been carried. It is also conceivable that from the portal thrombus small poisonous emboli have been thrown off in such numbers as to cause stasis backwards from the distal side, and the sudden pain coming on whilst enjoying a game of tennis may have been due to some such shedding of emboli and consequent interference with the circulation in the part.

Abscess of Liver.

During the past two years we have treated eight cases of abscess of the liver, of which five recovered and three died. Of these eight, only two occurred in Hankow residents; the others were in persons residing further up river who came to Hankow for treatment. Three of these were Roman Catholic missionaries from Ichang, one was a blue-jacket from Ichang, one a Customs official from Shasi, and another a Customs official from Yochow. Of the eight, five gave a history of dysentery, while three said they had frequently had attacks of "diarrhœa" but never dysentery. Classified with reference to the alcoholic habit, four were alcoholics and four most certainly were not. Thus far the balance seems even; but, be it noted, all the fatal cases belonged to the first of these classes.

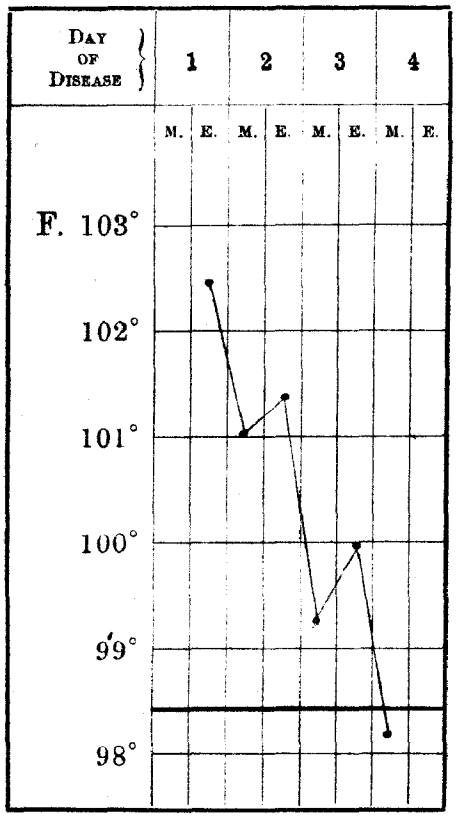
In only one of the eight cases had we difficulty in localising the abscess; in it several attempts with the aspirator failed to strike pus. Before an abscess which was situated high up in the convexity of the liver was found, opened, and drained, symptoms of peritonitis had already set in; and the operation was undertaken as a last hope. From the beginning of the illness there had been considerable tympanitis, also tenderness over the cæcum and in the pit of the stomach. Hiccough was troublesome. The abscess that was opened drained well. There was no autopsy; so the condition of the bowel was not ascertained, and the question of multiple abscess was left unsettled.

Of the remaining two fatal cases, one was multiple, and the other occurred in a patient who was at the same time suffering from delirium tremens. This last case was interesting in that he developed marked bronzing of the skin before operation; and at the autopsy this was shown to be due to infiltration of the right supra-renal capsule with pus. The abscess, too, was enormous, but was not accompanied by any pronounced enlargement of the liver.

In only one case (the last operated on) was there any marked bulging of the liver beyond the costal margin. In this case the patient arrived in Hankow with the liver border down to about 2 inches from the umbilicus and the whole liver bulging considerably. He was operated on at once; and the material discharged was of a dark chocolate colour, thick and almost semi-solid in part. Though the quantity was not actually measured at the time, yet, judging from the vessels filled, it could not have been far short of 2 pints; and for some time afterwards from 2 to 3 ounces either escaped or were aspirated through the tube (being sometimes too thick to flow) by means of an Allen's pump twice daily. Though the cavity in this case took nine weeks to heal completely, and though for a long time after the operation the patient's temperature ran from normal in the morning to 102° F. in the evening, he is now perfectly well.

Taking the remaining cases together, some came to Hankow never suspecting that the seat of trouble was in the liver. In coming to a diagnosis, it is often a case of first suspecting, then eliciting hidden signs. In any case of illness where diagnosis is uncertain, it does the patient no harm to suspect every organ and system in turn during the course of examination. In the case of the liver, besides mapping it out in the ordinary way by percussion and by palpation, compression may give a clue; and if one then goes over the whole of the surface in contact with the thoracic wall by systematically pressing with one hand the terminal phalanx of the forefinger of the other into each interspace at close intervals along its length, it will generally be found that, if an abscess be present, a characteristic liver pain (sometimes accompanied also by a pain in the right shoulder) will be elicited at the moment when pressure at a certain spot reaches a certain depth. If this pain can be elicited at more points than one, then by noting the point of greatest intensity and the depth at which pressure calls forth the pain, one is in a fair way to localise the abscess; and an aspirating cannula introduced in the proper direction and to the necessary depth at this spot will usually strike pus. As an aspirator, I have always used "Allen's pump," choosing for exploratory purposes the long trocar and cannula that go with that apparatus. Before proceeding to explore, everything necessary for opening and draining the abscess as soon as found is prepared. If the patient is weak or inclined to be nervous, he need not be taken from bed. A good light may be thrown on one side, and the operator may kneel by that side of the bed. Besides dressings, binder, pins, the usual basins, antiseptic lotion, and the necessaries for cleansing and rendering aseptic the site of operation and all that may directly or indirectly come in contact with the wound, the only instruments I have required, in addition to the aspirator, are a scalpel, a tenotome, a long sinus forceps, a stout rubber drainage tube with no side openings and in diameter not less than the forefinger, and an ordinary polypus forceps to grasp the end, stretch, and guide the tube into position. (The tube is stretched over the forceps beforehand, and retained thus ready to be introduced.) The patient having been anæsthetised and the necessary measures to ensure asepsis having been taken, the trocar and cannula are pushed so as just to clear the upper border of the rib, at the spot and in the direction previously determined upon. The sense of no resistance generally tells when the point has entered an abscess cavity; and when the trocar is withdrawn and pus is brought to light through the cannula, the skin is tightened and somewhat drawn down while an incision about 2 inches long, with its centre at the trocar puncture, is made through skin and fascia down to the rib at one stroke. The skin is now allowed to resile and the intercostal muscles are divided along the upper border of the rib the whole length of the incision. If the cannula has been withdrawn while the incision was being made, it is now reintroduced through the middle of the wound into the abscess cavity, and when a little pus has been again brought to light to ensure that the cannula is well within the cavity, a tenotome is passed along by the side of the cannula, and with it the liver capsule and the structures over it (diaphragm, etc.) are notched. Into the notch thus made the point of a long sinus forceps is introduced and pushed along by the side of the cannula well into the abscess. As the blades are opened the forceps is slightly withdrawn, thus enlarging the outlet and obviating the danger (should there be any) of pushing the liver from the thoracic wall and allowing pus to escape between the two. When the blades have been thus opened, pus flows freely from the

wound; and when a fair quantity has escaped, the forefinger is introduced, chiefly to ascertain the direction in which the tube ought to go, but at the same time to note the approximate size of the cavity, the character of its walls, and anything else there may be to note. In one case, for example, I felt thickish bands of tissue stretching across the cavity. These probably contained still intact vessels, which, if torn across, might have led to serious hæmorrhage. They were gently dealt with at the time, and carefully avoided when the drainage tube was being introduced. As the forefinger is being withdrawn, the drainage tube stretched on the polypus forceps is gently guided in the known direction to the furthest side of the cavity, and is then allowed to retract from its outer end before the blades of the forceps are opened and its inner end set free. After pus has ceased to flow, dressings are applied, the tube being secured by a large safety pin. The after-treatment in most cases consists in simply cleansing the skin and renewing the dressings once or twice daily, according to the amount of discharge. Should the tube get blocked, it is easily freed by means of a glass tube attached to an Allen's pump pushed along its lumen. Should the discharge at first be very copious or very thick, so as not to flow easily, the cavity can also in this way be emptied at each dressing, if necessary. While the necessity very seldom arises, there would be no harm later on in carefully douching with a weak, warm chinosol solution. In all my cases I have opened between ribs (at the spot indicated in localisation); and I have not yet seen any necessity either for metal drainage tubes or for removal of part of a rib.



Jaundice.

During the months of October and November of the present year many cases of jaundice occurred both among Europeans and Chinese here. So prevalent has it been that one must suppose some infective influence at work. In most of the cases, at all events among foreigners, there has been either actual pain or a sense of pressure and aching over the pit of the stomach (and in one case over the liver also), or a sense of constriction round the body in that region. Nausea during the first few days, with complete loss of appetite for a somewhat longer period, was common. In only one or two cases was fever observed. The accompanying chart shows the run of the temperature in one of these cases. In others the temperature was mostly subnormal throughout. In a few, irritation of the skin was the most troublesome and annoying symptom. One patient called me to see him simply on account of skin irritation and a measly rash. He thought, in fact, that he was suffering from measles, though at the time his conjunctivæ were already yellowish and his urine quite dark in colour. Fine desquamation of epithelium followed in this case.

In all, darkening of the urine was among the earliest signs, then yellowness of the conjunctivæ and skin, and clay-white stools. The depth of colouration of conjunctivæ and skin varied considerably—from light lemon-yellow to golden or greenish yellow. The duration of the attack was from two to three weeks, though, generally, colour began to return to the stools about the 10th day, and the patients felt well from this time onwards. Treatment consisted for the most part in keeping the patient warm, in dieting, and in giving Carlsbad in warm solution in the morning and a few doses of phosphate of soda throughout the day. In those cases where irritation of the skin was marked, it quickly disappeared after a few doses of phosphate of soda.

Though I can find no direct allusion to the subject, the prognosis in any case of severe accident or operation in a patient suffering from toxæmic jaundice would appear to be very grave indeed. During the above-mentioned epidemic, a coolie, while suffering from an attack, had his leg badly crushed and mangled by the wheels of a heavy waggon run on rails passing over it. He was brought to hospital in an exhausted condition from shock and loss of blood. The quilt in which he was carried was soaked with blood. Amputation had to be performed just below the knee. When cut into, the subcutaneous tissues and the intermuscular septa were more or less œdematous with bile or bile-stained serum. Though the patient had already lost much blood, oozing from the flaps was very difficult to stop. Next day the patient, in place of being restless from loss of blood, was drowsy and stupid; the dressings were soaked with dirty, greenish yellow, and blood-stained serum; and the amputation flaps were distended by a huge, firm, black clot. It, and the patient's body as a whole, had a sickly, cadaveric odour. The clot was cleared away, and the flaps were compressed by a bandage with pressure pads under it firmly and evenly applied. By next morning dirty, greenish, partly blood-stained serum had again soaked through the dressings. The sickly, cadaveric odour mentioned above pervaded the patient's neighbourhood. Stupor had overcome him; and towards evening he succumbed. The flaps, though stained almost black by the colouring matter of the altered blood and roughened with adhering bits of black clot, had no putrid smell, only that sickly, cadaveric odour already twice referred to.

Cancer of Penis in Chinese Hospital Patients.

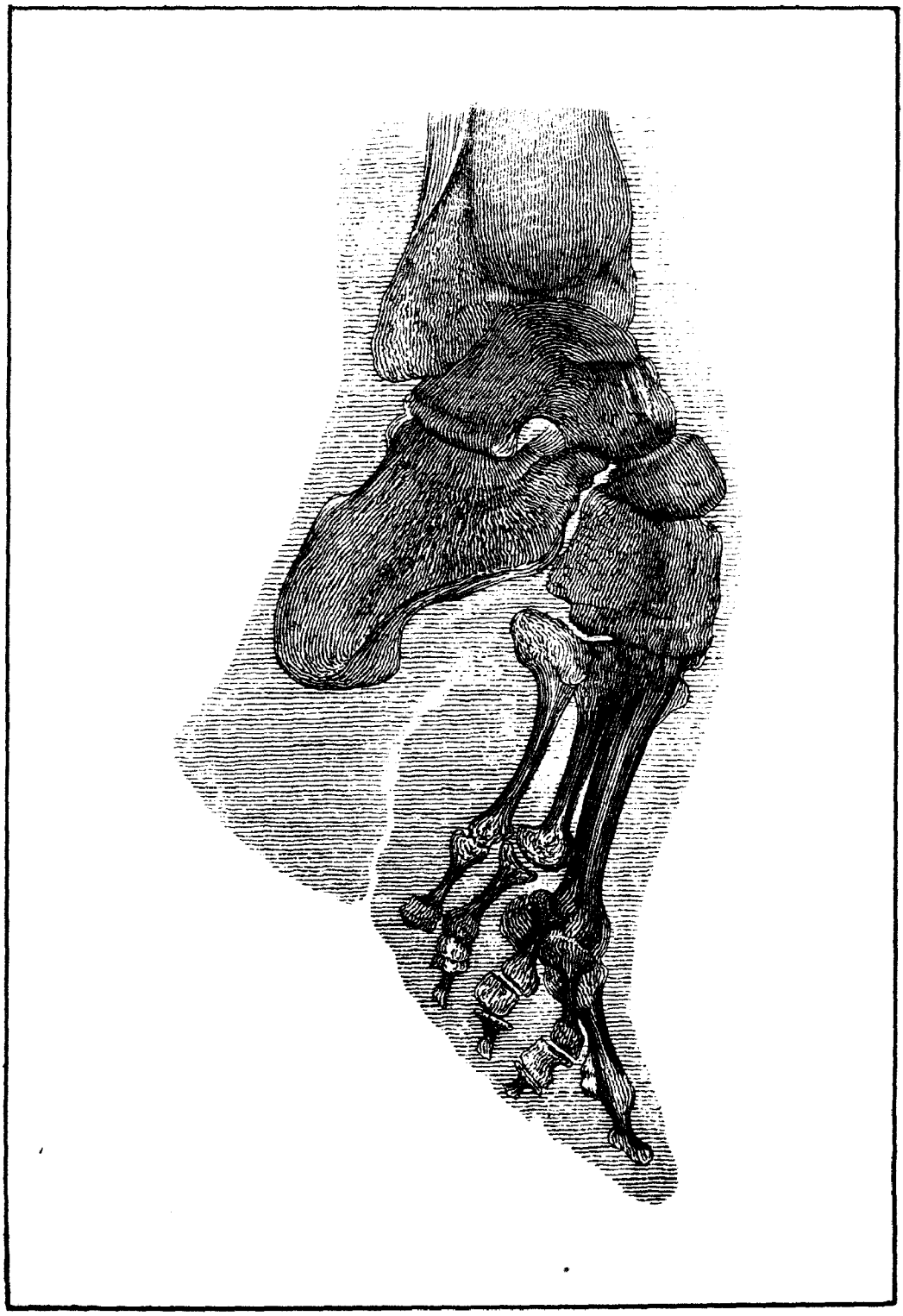
I select this class from among our surgical cases in the hospital for Chinese under my charge because of its frequency in hospitals in China when compared to similar institutions at home, and because some remarks on the surgical treatment of this condition may not be out of place here.

Eleven years ago I tried in turn the ordinary operations described in surgical text-books, viz.: (*a.*) amputation at the root by flap method where the condition allowed of this; (*b.*) shaving the tightened penis clean off at the root and bringing the stump (divided corpora and urethra) out through a median perineal incision previously made; and (*c.*) by splitting the scrotum—the reverse of an improvement on (*b.*).

Very early, however, I abandoned all these methods for the operation soon to be described. The first idea of this operation I got from my late partner, Dr. Charles Begg. The scrotum,

he maintained, after the penis had been cut short, was only a source of annoyance to the class of patient we had to deal with. In summer more especially, when lax and liable to get chafed, it was very apt to become excoriated and inflamed by last drops of urine trickling over it; and in the case of the working coolie, this might go on to such an extent as to incapacitate him from work and from earning his daily rice. Dr. BEGG therefore recommended to make "a clean sweep," to remove scrotum and testicles together with the penis. Since March 1894 (the date of my return to China from a holiday at home) I have operated in this way in altogether 30 cases. The operation itself, as I perform it, is simple; has never been attended with the slightest degree of shock or with any untoward result whatsoever; gives great freedom; and I would further add that, if there is anything in the assertion that inoperable cases of cancer of the breast in women are benefited and the growth kept in check by removal of the ovaries, it is reasonable to hope that in the cases here dealt with the removal of the testicles may have some effect in lessening the chances of recurrence, or of delaying growth in glands within the abdomen, should any such already contain the germ of the disease. I am sorry I can give no statistics as to freedom from recurrence, because cases, once they leave hospital, seldom report themselves. All I can say is that no case has come back showing recurrence; and I may judge from this, as well as from the free removal of neighbouring tissue and direct channels (inguinal glands, etc.) practised at the time of operation, that local recurrence, at all events, has been rare.

Description of Operation.—The parts having been previously shaven and disinfected, the first step in the actual operation is to secure the penis behind the disease by a strong, tightly-drawn, temporary ligature, and to sweep away the foul, cauliflower-form mass in front of this ligature. On account of the liability of the corpora to retract within the sheath, it will be well to secure them with cross pins or otherwise before they are divided. Having got rid of the cancerous mass, there is more freedom to work, and less danger of fouling or infecting the wound in the subsequent steps of the operation. The parts are again disinfected; and now the inguinal glands and lymphatic-bearing tissue on both sides are removed; the cords are secured and divided; and the groin incisions necessary for these procedures are joined above the root of the penis well free of the disease, the incision being here carried through the suspensory ligament kept tight by dragging on the stump of the penis. The dorsal arteries are in the meantime either avoided, or, if cut, are secured by artery forceps and ligatured. Any other vessels divided previous to this are also easily caught up and ligatured. The cords I have never found to give trouble. Though I have been in the habit of clamping them with an ordinary bone-faced pile clamp and using the cautery, they may, of course, be cut across and the vessels secured by ligature in the ordinary way. Their stumps lie snugly at or within the external openings of the inguinal canals. To proceed: the scrotum is now lifted up, and somewhere near its junction with the perinæum a point in the middle line where the corpus spongiosum containing the urethra will lie evenly and naturally is marked; and from the cross incision to this point the skin and underlying tissues, first on one side and then on the other, are evenly divided by scissors (if possible by one sweep for each side), leaving flaps that, in conjunction with the upper (pubic) flap, will meet without tension either in the form of a Y or a T, or something between, as the



APPENDIX A.

case may be (*i.e.*, as the disease admits of the pubic or of the side flaps being the larger). Bleeding points are easily secured; and now the freed scrotum is held up or clipped away, while the corpus spongiosum is divided transversely behind the temporary ligature spoken of at the beginning and is carefully dissected from the corpora cavernosa. This process is greatly facilitated by passing a metal bougie or sound into the urethra, and by means of it putting the tissues between the corpus spongiosum and the corpora cavernosa on the stretch while the cutting edge of the scalpel is inclined towards the corpora cavernosa. Once a certain distance back, separation is very easy. This done, a blunt instrument—closed scissors answer well—is pushed from below upwards between the crura, to separate and allow the finger to get in between them. The dorsal vessels are now secured; and if the arteries entering the crura are also tied, the crura may be torn from their attachments to the arch of the pubes, but it is easier to ligature the crura as closely as possible to the arch and to divide them beyond the ligatures. Everything has now been removed except the corpus spongiosum containing the urethra, and it has been left sufficiently long to project well from the lower angle of the wound. Should there be bleeding from the cut end of the corpus spongiosum, the mucous membrane of the urethra may be stitched to the capsule; but this is not always necessary. The flaps meet and are sewn together in something of a T or Y shape. No drainage tube is required. All is firmly healed by first intention. The whole area is smooth and clean; the urethra projects at the lower angle of the perpendicular limb of the wound, and urine can be passed freely in the usual way in the erect position.

Appendix A.

This is a reproduction of a skiagram of the Chinese woman's "small foot." It represents the foot of a young woman, with the boot on and the bandages in place, taken with the outer (fibular) side next the plate.

Appendix B.

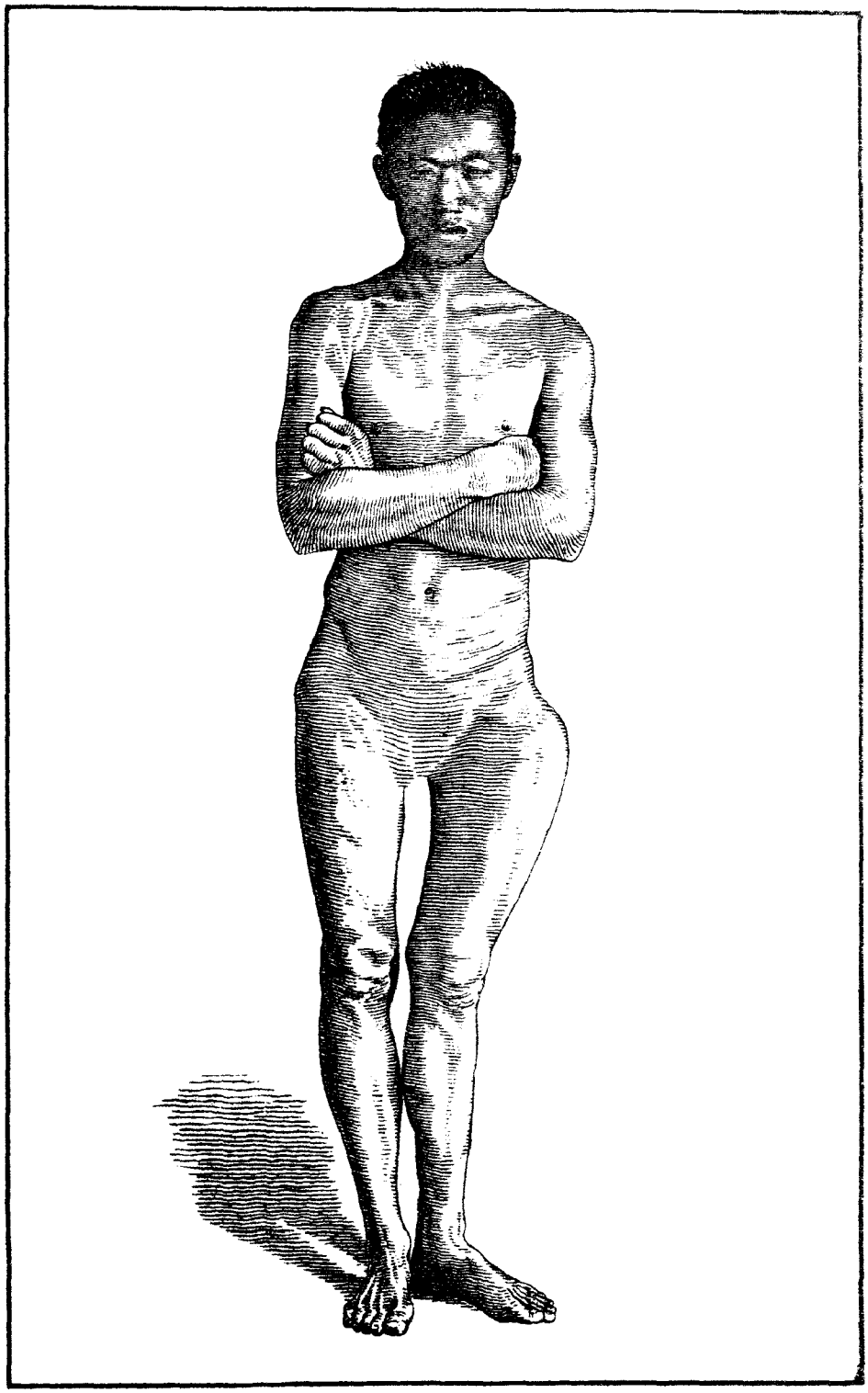
This is an interesting case of acquired curvature with thickening of the upper end of the femur, brought by Dr. Gillison, of the London Mission, for examination by the X rays. The following notes are from Dr. Gillison's statement of the case.

The patient, a farmer, aged 21 years, states that two and a half years ago, while working in a paddy field, he felt pain in his left hip and thigh, and this he considers was the beginning of his troubles. At that time he says that his left thigh was perfectly straight and that there was nothing to be seen in it different from his other thigh. Pain continued for some months; the thigh felt weak; but it was not until later that the patient noticed a hard swelling at the site where the bend now is. The swelling gradually increased, while pain got worse, and

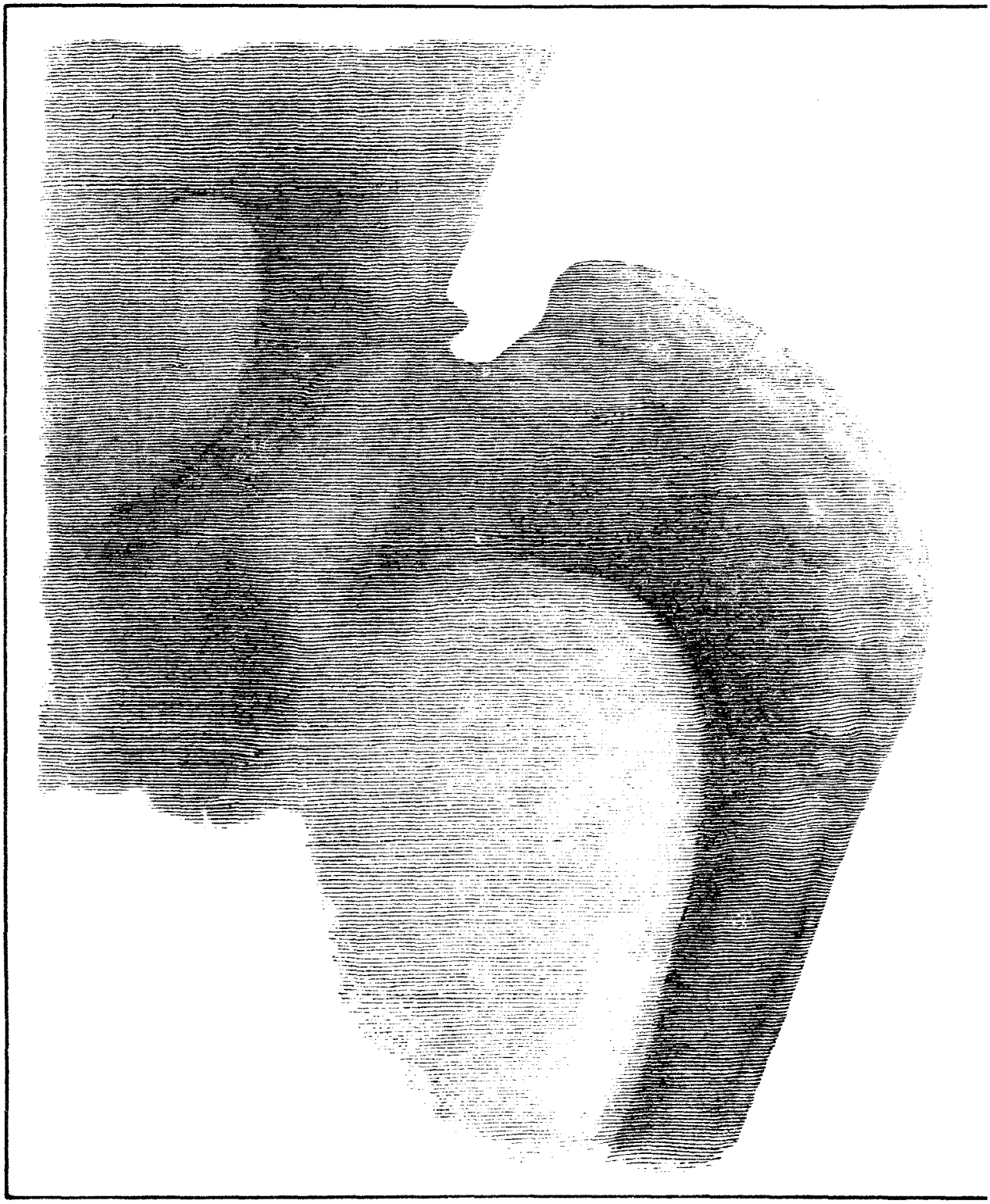
by degrees disabled him from work in the field. At present he is unable to carry any sort of load. He has pain when he attempts to carry, or when he walks much, but none when in bed at night. The appended reproductions of photograph and skiagram show most that remains to be said. Though the apparent shortening is about 3 inches, the measurement from the tip of the trochanter following the curve along the axis of the bone to the knee is about the same as from the tip of the trochanter to the knee on the sound side. Flexion at the hip is reduced to about half its usual compass, while extension (as seen in the reproduction of photograph) is not interfered with. The skin over the swelling is not red, and does not feel hot. The swelling itself is hard and only slightly tender to strong pressure. The thigh muscles are not wasted. With the exception of chronic enlargement of both tonsils, there was nothing further to note. The patient was otherwise apparently quite healthy.

The reproduction of skiagram shows the thickened, bent part of the femur to be nodulated on the surface, and to consist of dense bone in its inner (concave) portion, which sends a few short trabeculæ into the outer (convex), more transparent, perhaps mostly cartilaginous, portion.

The history of the case points to strain in dragging the limb through heavy paddy ground, and the age of the patient at the time the pain started suggests that the trouble may have begun in epiphysial cartilage—the greater trochanter not uniting until "about the 18th year."



APPENDIX B.



DR. HERBERT J. HICKIN'S REPORT ON THE HEALTH OF NINGPO

For the Half-year ended 30th September 1900.

THE health of the port during the period under review has been good. There have been two births, no deaths, and no epidemics.

While Ningpo is a fairly healthy port compared with other ports in China, yet it cannot be classed as in any sense a health resort. Those whose constitutions are impaired by excesses or previous disease, and those who are careless in guarding themselves against the sun or the variations in temperature, are by no means free from serious disease. The Settlement being situated on a low-lying plain and almost enclosed by the bends of the river, its atmosphere is necessarily damp and enervating.

The following cases are of interest:—

FISH POISONING.

Case 1 occurred in a strong, vigorous man, aged about 30. On 2nd April he wrote as follows:—"Yesterday for dinner I ate too freely of pickled mackerel; all the night I was sick, vomiting constantly, though I ate no supper. This morning I did not want any breakfast, but forced myself to eat about two spoonfuls of porridge; then I took a dose of rhubarb; but the vomiting and sickness and bad headache have continued all day. I had nothing for dinner but a glass of hot water. I had a movement of the bowels early this morning, but none since. Can you tell me what I had better do?" I found the patient with a temperature of 102° F., much prostrated, and with a weak pulse. In the afternoon the temperature rose to 103° F. The tongue was very foul. A soothing mixture containing morphia was prescribed, and followed in 24 hours by two full doses of castor oil.

3rd April.—Temperature kept up all day, but patient was now able to take a little liquid nourishment. He is still very weak.

4th April.—Eruption all over the body of red, papular patches. The papules towards the centre of the patches develop into small bullæ, each containing a clear, yellow fluid. The eruption is intensely itchy.

5th April.—Eruption declining, but still excessively irritable. The temperature keeps declining.

6th April.—Temperature normal.

7th April.—Patient out of doors shooting.

Case 2.—Wife of the above. Primipara; full time pregnant. Has been eating freely of fish for several days. She has complained the last few days of severe itching of the abdomen.

2nd April.—Her husband wrote, saying "the itching is terrible, giving her no rest—an 'agony.'" Boracic ointment had been prescribed, but gave only a very temporary relief. Cocaine in 4 per cent. lotion was now ordered, and gave great relief.

3rd April.—Eruption of raised, red patches all over the abdomen, buttocks, and flexures, spreading to the arms and legs. Dusting powder of starch and zinc oxide ordered. Patient has been carrying out instructions laid down in an American book, the object of which is to render labour painless. The chief principles are to avoid butcher's meat and sugar, and to live on a vegetarian dietary of fruit and vegetables with farinaceous food and milk. Hot baths and graduated exercises are likewise enjoined.

4th April.—Eruption fading. Labour commenced last night. "Show" about 4 A.M. Pains, even of the first stage, very strong all morning and afternoon. At 9.30 P.M., the os being fully dilated and pains strong, the membranes were ruptured. The pains now became terribly intense, and about 11.30 P.M. assistance was summoned and chloroform administered, as rupture of the uterus was feared, the pains having become almost continuous in character. An hour later, the pains, even under chloroform, continuing exceedingly violent—so much so that patient almost threw herself out of bed during their onset,—it was decided to apply forceps. This was done, and the child born without difficulty; but a hand outstretched by the neck caused a long pause before the posterior shoulder could be got through. The perinæum was, however, not ruptured. A large, round tumour at the fundus of the uterus now attracted notice, and at first gave rise to a suspicion of twins; but careful examination elicited the fact that it was a tumour moving freely at the fundus. On palpation it gave exactly the sensation of a limb, and indeed was so diagnosed before the onset of labour.

7th April.—Both mother and child doing well, but difficulty was experienced in getting the child to take to the breast, though the nipples were well drawn out and the supply of milk was abundant. Possibly the quality of the milk was altered and distasteful to the child. The latter was deeply jaundiced, but its conjunctivæ were not very deeply tinged. The bowels were freely moved. An eruption of red, erythematous patches was now observed all over the child's abdomen, and to a less extent on the extremities.

8th April.—Mother's temperature rose to 101° F. Pulse and aspect both good. Milk secretion not arrested. Lochia not arrested or offensive.

9th April.—Lochia very offensive and profuse. Secretion of milk unaltered. Pulse and aspect good. A creolin douche was now given morning and evening.

10th April.—Morning temperature has declined to 99°.8 F., but rose again in the afternoon to 101° F., and two hours later had again fallen to 99°.8 F. Douching still continued. Mother's eruption very irritable again, especially on the parts subject to pressure. The eruption on the extremities has paled in colour, but is still quite visible. Child's jaundice lessening and its eruption nearly gone. From this date both mother and child went on well, and there was nothing further of interest to note.

The eruption on the mother and child may possibly have been due to other accidental causes, and not to fish poisoning; but if so, it was a curious coincidence, and personally I think all three were due to one and the same cause, but probably not to the same dish of fish, as the mother was complaining of irritation a day or two before eating the pickled mackerel which upset the father.

Roseola.

Patient for a week past has been suffering from gastric pain, coming on about three hours after meals, and describes it as a "moving, gnawing pain." For this she treated herself with castor oil and santonin in three successive doses, but without relief. On 12th April a red eruption came out all over the body and limbs, including the face, together with slight feverishness.

13th April.—Eruption to-day is very like measles, but not crescentic. It consists of red spots, fading on pressure and not elevated above the level of the surrounding skin. It occurs copiously all over the arms, legs, trunk, and face. Curiously enough, it comes out on exposure to cold and fades when the body gets hot. There is no headache, fever, nasal catarrh, or suffusion of the conjunctivæ. The throat is slightly sore. On the face there are a few spots of different character from the rest—more like urticaria, being white and elevated, the size about that of a small mosquito bite. The eruption is slightly itchy.

In the course of three or four days the eruption had declined, and there was no visible desquamation of the skin. The same patient had a similar attack just about the same time last year, and had another attack a month or more after the one here described. The causation is obscure. It cannot be traced to errors in diet or exposure to cold, as the last attack occurred in hot weather.

Rupture of Muscular Fibres in the Calf of the Leg.

Patient, playing tennis on the afternoon of 30th August, suddenly felt a smart pain in the calf of the leg, and at first thought a tennis ball had struck him. He was unable to walk, and hopped off the ground to a seat. On examination a few minutes later, it was found that the patient could not put his foot to the ground on account of the pain so caused. On inspection there was no trace of redness or sign of local, external injury. On palpation there was acute tenderness and pain about 1½ inches below the centre of the calf, but no separation of muscular fibres could be felt. Rest and cold compresses were ordered. Next day there was slight swelling over the site of injury, but nothing else of note occurred (save gradual diminution of tenderness) till 3rd September, when a slight yellow discolouration was noticed over the calf of the leg and over the inner side of the leg in front. This discolouration was more pronounced the next day, and on 5th September the colour was deep saffron, and there was swelling of the ankle and foot with ecchymosis on either side of the heel. There was no redness or heat, but on the contrary, both leg and foot were cold. Under rest and elevation, together with pressure, the swelling decreased and the discolouration slowly declined. The injury was apparently deeply seated, as

tenderness on deep pressure persisted after the superficial tenderness had ceased. About five weeks elapsed before the patient was able to walk.

I am inclined to think that it was the plantaris muscle that had ruptured, for the following reasons:—

(1.) The injury was deeply seated, as manifested by the tenderness on deep pressure, also probably by the long time that it took for the effusion to work its way to the surface, and by the absence of any external depression to careful palpation.

(2.) Pain was complained of in the popliteal space corresponding in site to the origin of the muscle.

(3.) The situation of the ecchymosis at the heel seemed to suggest conduction down the tendon of the plantaris and its diffusion on either side of the heel.

(4.) The exertion undergone at the time of the injury did not seem violent enough to rupture any muscle but one of very small size.

Frontal Neuralgia and Renal Calculus.

Patient came first under observation complaining of severe brow-ache, so intense as to give him quite a dazed aspect and the expression of a man suffering great pain. On palpation there were no painful spots to be made out over the supraorbital nerves. The headache came on about 9 or 10 o'clock in the morning, and lasted till 4 or 5 o'clock in the afternoon. After an initial treatment with quinine and nerve sedatives without success, knowing the patient had a gouty history, the urine was examined, and abundant crystals of oxalic acid (some of them of very large size) and blood corpuscles were found. Suspicion of calculus being aroused, treatment was changed accordingly, with electricity locally. The headache now speedily gave way, but pain in the back and other symptoms of renal calculus replaced it. After the lapse of a couple more days patient told me his disease had taken on another phase, and that he had been up and down all night, constantly trying to micturate. He was told that the calculus had now passed from the kidney into the bladder, and might be expelled. In the next 24 or 36 hours patient sent me the calculus—a small, very rough fragment, weighing about a grain. After this his symptoms rapidly declined. The patient, however, has been suffering terribly all through the summer and autumn from asthma, to which he is subject, and which probably likewise owes its obstinacy to his gouty diathesis.

DR. RODERICK J. J. MACDONALD'S REPORT ON THE HEALTH OF WUCHOW

For the Year ended 30th September 1900.

THE health of the foreign community has been comparatively good.

Birth and Death.—One male child was born; and one young lady died. She relied on immediate Divine healing, without doctor or medicines. Whilst a refugee at Macao she passed away, the cause of death, as I heard, being Bright's disease.

Residences.—The British Consul and most of the foreign Custom House officers continue to rent and reside in the unsuitable boats which have been already reported upon. A substantial building is rising on the right bank of the Fu River, which is to be the British Consul's office, consular gaol, and constable's house.

Food Supply.—The milk, meat, and water supplies continue in the same unsatisfactory state.

Hospitals.—The Kwong-yan I-un is repaired and more windows have been introduced, effecting considerable improvement. It now lacks modern, rational treatment of disease. Might not this be attained by the appointment of a doctor trained in the Hongkong Medical School? The Wesleyan Mission has nearly completed the first ward of its future hospital, called the "Hart Ward," and intended ultimately for the treatment of foreigners (Custom House officers and others). The small building comprises bedroom, bathroom, sitting-room, south and west verandah; and on the ground floor, kitchen, servants rooms, and store-room.

State of the Town.—The same as when last reported.

Bubonic Plague Epidemic.—The epidemic began in April and ended in August. Sporadic cases continued to occur throughout September. This year the epidemic was even more severe and protracted than last year.

Collective View of Disease.—A table appended furnishes a collective view of ailments among foreigners during the three years from August 1897 to August 1900. From this it appears that April is the most generally unhealthy month for foreigners, and January and February are the healthiest. The summer and autumn seasons are trying.

Seven-tenths of the sickness affects the alimentary, integumentary, and respiratory systems, or is due to zymotic disease. The circulatory, hæmopoietic, urinary, reproductive,

nervous, and locomotory systems are but slightly affected; diseases of the eye and ear are insignificant in amount; and injuries are rare.

The malarial microbe has attacked children and women mostly in the warm season; men, in autumn and winter. Small-pox occurs in December, January, and February. Children's strumous glandular enlargement in winter. Diphtheria in April. Typhoid fever in July. Erysipelas and boils in summer. Ascarides, in children, in summer and autumn; in adults, in summer. Diarrhœa, in children, in spring and autumn; in adults, in summer and winter. Dysentery, in children, in summer and autumn; in men, during winter and spring. Influenza, in children, spring, summer, and autumn; in adults, in spring and autumn. Scarlatina in December.

A similar view of disease among natives includes, in addition, cholera in spring; typhoid fever in February, as well as in summer; bubonic plague in summer (April to September). In summer, also, measles, whooping-cough, acute rheumatism, anthrax, tetanus, and puerperal septicæmia; and malarial fever, epidemic in the æstivo-autumnal season, is endemic all the year round. But more extended observations will probably considerably modify most of these statements.

I have to thank the Harbour Master for the customary meteorological table.

COMPARATIVE VIEW OF DISEASES AMONG FOREIGNERS AT WUCHOW, for Three Years, August 1897 to August 1900.

MONTH.	MEN.	WOMEN.	CHILDREN.
January	Diarrhœa, dysentery, malarial fever.	——	——
February	Neuralgia, malarial fever, small-pox, anthrax.		Intestinal colic.
March	Dysentery, follicular tonsillitis	Catarrhal pharyngitis, neuralgia, alveolar abscess, influenza.	Influenza.
April	External hæmorrhoids, asthma, eczema, neuralgia, diphtheria, influenza, septic wound.	Jaundice, malarial fever	Diarrhœa, malarial fever.
May	Dental caries, hordeolum, tinea, influenza.		Diarrhœa.
June	Diarrhœa, catarrhal jaundice, acute pleurisy, eczema, furunculus.	Dyspepsia, diarrhœa, otitis	Dysentery, ascarides, catarrhal laryngitis, malarial fever.
July	Ascarides, diarrhœa, furunculus, abscess, muscular rheumatism, malarial nephritis, typhoid fever, bullet wound.	Normal confinement	Erysipelas neonatorum, typhoid fever, malarial fever, boils, bronchitis, influenza.
August	Eczema, ulcer of cornea, malarial fever, lightning stroke.	Anorexia	Erysipelas neonatorum, malarial fever.
September	Malarial fever.	——	——
October	Dyspepsia, follicular tonsillitis, dry pleurisy, malarial fever.	Contagious pemphigus, normal confinement.	Ascarides, irritative diarrhœa.
November	Septicæmia, bronchitis, conjunctivitis, malarial fever, influenza.	Influenza	Influenza, scarlatina, dysentery.
December	Follicular tonsillitis, ischio-rectal abscess, malarial fever.	Small-pox	Strumous glandular enlargement.

METEOROLOGICAL TABLE, April to September 1900.

MONTH.	THERMOMETER.						BAROMETER.		RAINFALL.	
	Maximum.	Minimum.	Maximum Mean.	Minimum Mean.	Maximum Dry.	Minimum Wet.	Maximum.	Minimum.	No. of Hours.	Quantity.
	° *F.*	° *F.*	° *F.*	° *F.*	° *F.*	° *F.*	*Inches.*	*Inches.*		*Inches.*
April	91	60	80.2	67.7	91	58	30.28	29.75	51	6.69
May	95	63	84.8	72.1	95	65	30.20	29.76	65	4.89
June	91	72	83.7	74.8	91	71	30.05	29.60	71	7.85
July	93	72	89.2	76.8	93	72	30.10	29.73	34	4.23
August	101	73	93.8	77.4	101	70	30.05	29.60	41	3.60
September	95	75	89.8	72.9	95	61	30.18	29.55	27	2.63

DR. J. H. LOWRY'S REPORT ON THE HEALTH OF HOIHOW AND KIUNGCHOW

For the Half-year ended 30th September 1900.

FOREIGN POPULATION.

Male adults	25	Male children	5
Female adults	8	Female children	10

The general health of resident foreigners has been good during the past six months.

There have been two births—both females,—and there has been one death.

The sick list has been small, but a number of residents were absent from the port during the two hottest months—July and August. The exodus of foreigners was brought about by an apprehension that an anti-foreign feeling was growing and that there would be trouble in the district. Happily, it was a false alarm, and in spite of a large influx of people into Hoihow for a great religious festival, quiet and order were maintained.

A member of the Customs staff suffered from repeated attacks of malarial fever, and his continued feeble health necessitated his transfer to a northern port.

A case of carbuncle of the neck in a visitor required treatment. It broke down, and the healing process was slow. The patient also suffered from gout in one foot, and had fever of a remittent type.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS taken at the Custom House, Hoihow (Kiungchow), April to September 1900. (Latitude, 20° 3′ 13″ N.; longitude, 110° 9′ 3″ E.)

MONTH.	WIND.							BAROMETER.		THERMOMETER.		Fog.	RAINFALL.	
	No. of Days N. to E.	No. of Days E. to S.	No. of Days S. to W.	No. of Days W. to N.	No. of Days Variable.	No. of Days Calm.	Average Hourly Force.	Highest.	Lowest.	Highest.	Lowest.	No. of Days Fog.	No. of Days.	Quantity.
								Inches.	*Inches.*	° *F.*	° *F.*	*D. h.*		*Inches.*
April	3	17	7	1	2	...	3	30.38	29.87	93	72	0 12	1	3.24
May	7	9	2	2	11	...	1	30.25	29.90	91	73	...	2	5.56
June	10	10	2	5	3	...	3	30.10	29.75	92	78	...	3	18.17
July	4	20	...	1	6	...	2	30.19	29.90	92	80	...	1	9.08
August	5	10	3	6	7	...	3	30.14	29.38	87	80	...	3	13.05
September	11	5	1	5	8	...	3	30.25	29.72	85	78	...	2	5.14

DR. H. M. McCANDLISS' REPORT ON THE HEALTH OF HOIHOW AND KIUNGCHOW

For the Half-year ended 30th September 1900.

THE plague epidemic was still in progress at the close of the last half-yearly Report, and continued until about the middle of June. Up to the close of the former Report there had been about 2,000 deaths; but at the end of the epidemic the officials estimated a total mortality of 5,700, which would make about 19 per cent. of the population. Probably 15 per cent. would be nearer the mark. In the Rice Street district over half of the population died. This district is one of the cleanest in Hoihow, on account of the open spaces being constantly swept and used to dry the paddy. On the other hand, the abundance of grain causes the district to swarm with rats, vast numbers of which died. This is a strong point in favour of the rat infection theory. In another district there is a cluster of Chinese houses somewhat separated from others. One house in this cluster we call the "dirty" house, because both people and place are so dirty. All the other houses had plague, and in one of the houses not a soul was left living; yet in the dirty house there was not a case. Those who maintain the filth theory will have to face innumerable instances of similar nature; and it is to be feared that, laudable as the Hongkong whitewashing is, unless it is combined with the destruction of rodent life, the measure will fail of eradicating the plague.

During the latter half of the epidemic there were eight cases of plague received into the isolation ward of the hospital. Of the eight cases, seven recovered. No specific treatment was attempted. Windows and doors were kept open, high fever was relieved by sponging, and buboes were poulticed. The worst cases were fed on Nestlé's Food every three hours. In only one case could I be sure of the period of incubation, and that was exactly six days.

No foreigners took the plague. There are no Europeans in Hoihow that live on the ground floor, and I know of no house but what is fairly well ventilated, albeit most of them are still but modified Chinese houses. We rejoice in nine houses that have been built on foreign lines for the accommodation of foreigners: so that there is considerable progress toward the sanitary convenience of the community. About half of these are due to the enterprise and building genius of a British Chinese who has been in the port two or three years.

We were saddened by one death, in the person of a European adult (female), who had suffered from malarial fever in Hongkong and afterwards here. The present attack was ushered in by a fever of 103°.4 F. Twice during the seven days of illness the temperature fell below 103° F., but the general temperature was between 103°.5 F. and 104°.5 F. The distress over liver and kidneys continued even after three days of thick, smoky urine. I would call attention to this point.

(1.) Dr. LOWRY and myself agreed on consultation that it was not a case of plague.

(2.) I have seen, in the southern states of America, many fatal cases of the hæmorrhagic malarial fever at the commencement of the hot stage of which the urine voided contained blood in greater or less quantity, but in such cases there was extreme stupor.

(3.) In the hæmoglobinuric fever recently studied in Central Africa, the voiding of the bloody urine is attended by relief of the pain over the kidneys; but in this case neither that nor any of the remedial measures resulted in relief.

Some high authorities are credited with saying that the hæmoglobinuria in the fever of that name is probably the result of quinine poisoning. In answer to this I would say that every year in this hospital we consume from 100 to 300 ounces of quinine in the treatment of various phases of malarial infection, and I can remember but three cases of hæmoglobinuria, each of which was associated with enormous spleens. This is said with the more confidence inasmuch as there is no avenue of symptoms so closely watched by the Chinese patient as the colour of his urine. In the present case the patient retained possession of her faculties until a few hours before death, during a sickness of seven full days.

In July a number of the foreign residents left the port and spent six or eight weeks in Hongkong. A large house, high up on the hill above the Civil Hospital, was occupied by 14 adults and a number of children and servants. None of these people had been suffering with recent outbreaks of malarial fever. In the few days that I was in the house I found three or four specimens of the Anopheles claviger. This small representation was scarcely sufficient to account for all the large number of inmates, with one or two exceptions, being attacked with a quotidian type of fever, which did not readily yield to quinine. However, there were innumerable little gnats, so small that the eye would scarcely notice them, until a severe itching would compel attention and the little black gnat would be found on some exposed part, but so very mobile that it was difficult to capture or kill. 10 or 20 of these little gnats would be found on the children's bare legs at one time. Those in Hongkong who have good microscopes would do well to study this subject.

I have found the Anopheles under the mosquito curtains of two foreigners in Hoihow who were suffering from malarial fever this summer.

DR. A. SHARP DEANE'S REPORT ON THE HEALTH OF PAKHOI

For the Half-year ended 30th September 1900.

THE six months just past have been uneventful from both a medical and sanitary point of view. A few cases of dysentery and diarrhœa occurred during July and August, but nothing of the nature of an epidemic of these affections prevailed. Remittent fever appeared towards the end of September in the town and neighbouring villages, some of the cases being of a protracted and fatal type.

Plague, as was anticipated at the commencement of the year, did not appear as an epidemic in the town or country round the port, nor were there any isolated cases in our vicinity. But from Lienchow, only 10 miles distant, reports were received that parts of that city had been rendered uninhabitable by a sudden outbreak of this disease, which, however, disappeared nearly as quickly as it had come, and did not, fortunately, spread beyond the affected areas, which were of small extent.

It will be recollected that during the first half of last year plague at Pakhoi raged in a manner almost second to no epidemic witnessed since the opening of the port, and that Lienchow was little affected by the disease during that period. This year Lienchow suffers from a sharp, short epidemic of plague, while Pakhoi remains immune. Such anomalies are difficult of explanation.

Little change has taken place in the sanitary condition of the port. During the spring the work of repairing the streets, mentioned in my last Report, was commenced, but had not progressed far, when intelligence of the unsettled state of affairs in the North reaching us put a stop to the undertaking for a time. What has been accomplished is a great improvement on the sloppy, muddy streets of the past; but, as yet, no attempt has been made towards flushing the side channels of the roads, to keep them free of fermenting filth.

METEOROLOGICAL TABLE, April to September 1900. (Latitude, 21° 29′ N.; longitude, 109° 6′ E.)

MONTH.	THERMOMETER.			RAINFALL.	MONTH.	THERMOMETER.			RAINFALL.
	Highest.	Lowest.	Mean.			Highest.	Lowest.	Mean.	
	° *F.*	° *F.*	° *F.*	*Inches.*		° *F.*	° *F.*	° *F.*	*Inches.*
April	90	65	77.00	1.64	July	94	73	84.17	38.51
May	94	67	80.93	3.10	August	97	72	84.46	9.01
June	90	71	82.10	7.02	September	95	71	81.98	2.57

RAPPORT MÉDICAL SUR L'ÉTAT SANITAIRE DE SZÉMAO

PENDANT LE PREMIER SEMESTRE 1900,

Par le Docteur ORTHOLAN.

PENDANT le premier semestre 1900, il n'est survenu à Szémao rien de particulièrement intéressant au point de vue médical.

Le nombre des Européens présents à Szémao pendant ce semestre a été de trois et quatre. Il n'y a rien à signaler au sujet de leur santé, qui n'a été troublée que par quelques petits accidents tout à fait banals.

Szémao n'est habité par des Européens que depuis environ quatre ans. Ils y ont toujours été en très petit nombre, jouissant d'un mode d'existence tranquille, avec un confortable relatif. Malgré sa courte durée, le petit nombre des sujets et les bonnes conditions hygiéniques, dans lesquelles ils se trouvaient, l'expérience me paraît cependant suffisante, pour pouvoir dire que Szémao est un endroit sain, où les Européens peuvent habiter impunément sans être atteints par les graves endémies tropicales, telles que le paludisme, l'anémie, la dysenterie.

Tout en étant situé dans la région tropicale, 22° 46', Szémao ne possède pas le climat tropical. La latitude est corrigée par l'altitude, 1,400 mètres environ. C'est encore un climat chaud, mais le degré hygrométrique y est beaucoup plus faible que dans la plupart des autres lieux situés sous la même latitude. Si en été, pendant la saison pluvieuse, l'atmosphère est saturée d'humidité, pendant l'hiver, l'air est très sec à la différence des régions voisines, le Tonkin par exemple, où pendant l'hiver, saison sèche, il fait presque aussi humide que pendant l'été. Ce qu'on appelle au Tonkin le crachin, n'existe pas à Szémao. Le ciel est presque constamment pur, sauf quelques brouillards le matin, et le soleil éclatant. C'est pour cela que, pendant l'hiver, le froid y est moins sensible qu'au Tonkin et dans les pays voisins, en même temps que, pendant l'été, la chaleur y est beaucoup moins forte et, en général, les courbes de température beaucoup plus régulières.

Voici un tableau résumé des observations faites au consulat de France depuis quatre ans, date de son installation à Szémao. Pour des causes diverses (absences, voyages) les observations n'ont pas été prises avec une constante régularité, mais telles qu'elles sont, elles suffisent, je crois, à donner une idée sur la température moyenne à Szémao.

MOYENNE DES MINIMA ET DES MAXIMA, ET MOYENNE GÉNÉRALE PAR MOIS.

ANNÉE.	JANVIER.		FÉVRIER.		MARS.		AVRIL.		MAI.		JUIN.	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1896	11.2	17.2	...	...	...	...	...	...	...	...	...	...
1897	11.2	17.2	11.0	22.5	13.5	25.0	22.0	30.5	22.6	33.6	23.7	29.2
1898	...	...	...	...	...	...	...	...	...	...	...	...
1899	7.4	19.3	7.3	20.2	12.2	25.1	15.9	27.0	18.5	25.5	19.1	24.9
1900	3.9	23.0	6.3	23.4	8.5	28.5	14.0	30.2	16.9	29.5	19.4	28.7
Moyenne générale	7.5	19.8	8.2	22.0	12.0	26.8	17.3	29.0	19.3	29.5	20.6	27.6

ANNÉE.	JUILLET.		AOÛT.		SEPTEMBRE.		OCTOBRE.		NOVEMBRE.		DÉCEMBRE.	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1896	...	...	20.1	23.8	19.4	22.7	17.0	22.3	12.8	19.0	9.1	15.8
1897	22.2	26.9	21.5	26.5	20.9	26.5	20.3	26.2	...	...	...	...
1898	...	...	...	...	19.0	25.2	15.0	25.9	11.0	23.1	8.8	19.2
1899	19.0	25.4	19.0	26.4	...	...	16.5	24.5	11.0	22.0	...	...
1900	19.2	29.2	...	...	...	...	...	...	...	...	...	...
Moyenne générale	20.1	27.1	20.2	25.5	19.7	24.6	17.2	24.7	11.6	21.3	9.3	17.5

PENDANT LA MÊME PÉRIODE LE NOMBRE DES JOURS DE PLUIE A ÉTÉ LE SUIVANT.

ANNÉE.	JANVIER.	FÉVRIER.	MARS.	AVRIL.	MAI.	JUIN.
1896	...	...	...	...	...	...
1897	0	4	3	0	10	20
1898	...	...	...	...	...	...
1899	4	4	4	10	24	28
1900	0	0	0	11	11	20

ANNÉE.	JUILLET.	AOÛT.	SEPTEMBRE.	OCTOBRE.	NOVEMBRE.	DÉCEMBRE.
1896	...	25	18	14	0	0
1897	26	30	17	18	...	...
1898	...	...	20	8	3	8
1899	29	19	24	13	7	0
1900	25	...	...	...	...	...

Le tableau précédent montre que, pendant une moitié de l'année, la pluie est très rare à Szémao; pendant l'autre moitié, au contraire, il pleut trop abondamment. Les observations de l'état hygrométrique n'ont été faites que pendant le premier semestre 1900. Elles portent sur une période de temps trop courte, pour que nous puissions en tirer des conclusions valables.

Nous n'avons fait ces constatations sur la climatologie de Szémao, que pour appuyer l'opinion émise plus haut, à savoir que les Européens auront des chances de ne pas être atteints par l'anémie tropicale, si l'on considère cette anémie produite par la chaleur et la tension de la vapeur d'eau.

Aucun des Européens, que nous avons vus ici n'était, en effet notablement anémie, malgré un long séjour. Mais nous croyons, quoique nous n'en ayons pas observé d'exemple bien net, que, comme dans les climats chauds, les Européens seront assez sujets aux maladies gastro-intestinales—congestion du foie, rectite, embarras, gastriques, et dyspepsies atoniques, parésie intestinale, etc.

Si nous envisageons d'autre part l'anémie tropicale, comme provenant des accidents aigus du paludisme, ou de la lente et insensible imprégnation paludéenne, nous pourrons encore être rassurés sur l'avenir des Européens à Szémao, et espérer qu'ils n'auront pas trop à lutter contre ce paludisme et cette anémie paludéenne, ou tropicale.

Le paludisme existe à Szémao, mais à un assez faible degré. Encore une enquête sérieuse parviendrait-elle peut-être à démontrer, que beaucoup de cas classés comme fièvres paludéennes ne sont que des fièvres produites par des infections banales et non malariennes, que dans la plupart des autres cas, la fièvre a été contractée dans les environs; peut-être pourrait-on démontrer, que la malaria n'existe, que dans certains bas quartiers de la ville, les moustiques y étant d'ailleurs beaucoup plus nombreux que dans d'autres quartiers plus élevés où ils sont très rares.

Mais même en admettant qu'un grand nombre de cas de fièvre paludéenne aient été contractés à Szémao, il n'en est pas moins vrai, que le paludisme y sévit avec une intensité infiniment moins grande que dans les régions tout à fait voisines, État Shan Chinois, Laos Français, Haute Birmanie Anglaise. Il est très probable que si l'on pouvait toujours rester sur le plateau et si l'on n'était pas obligé de descendre dans les vallées, on aurait de très grandes chances de ne pas être atteint par le paludisme.

Mon prédécesseur ayant déjà donné, dans ses différents rapports, une description du pays, au point de vue géographique et ethnographique, je me permettrai seulement d'en donner un court aperçu de géographie médicale.

La ville de Szémao est bâtie sur un plateau d'environ 1,400 mètres d'altitude formé par le fond d'une cuvette, d'origine très-probablement lacustre. Les centres de la partie sud-ouest du Yunnan sont tous situés sur des élévations analogues, et les Chinois n'habitent guère que sur ces plateaux. Ils sont séparés les uns des autres par des profondes vallées, de 300 à 500 mètres d'altitude seulement, Mékong, Rivière Noire, Fleuve Rouge, et celles de leurs affluents. Toutes ces vallées sont infestées par le paludisme. Les Chinois Yunnanais n'y descendent qu'avec crainte pendant la saison sèche, et refusent absolument de les traverser pendant la saison des pluies. Ces vallées méritent bien leur réputation d'insalubrité. La morbidité et même la mortalité pour les Chinois du Yunnan, qui sont obligés d'y résider, ou

simplement de les traverser, est vraiment extraordinaire. Nous en avons vu nous-même des exemples frappants parmi les muletiers coolies ou soldats qui nous accompagnaient. Tous les Européens, qui ont voyagé dans cette région, ont d'ailleurs depuis longtemps constaté ce fait, de l'extrême sensibilité du Chinois Yunnanais au paludisme, dès qu'il quitte ses hauts plateaux pour les basses vallées.

Aussi celles-ci sont-elles, comme les vallées du Tonkin, du Laos et de la Birmanie, habitées par les rameaux de la grande race Thaï, rameaux qui se sont conservés presque purs de tout mélange avec les Chinois, et qui, à part quelques différences dans le langage et les vêtements, sont à près les mêmes que les Laotiens de la vallée du Mékong, les Thaïs, Thos des vallées des Fleuves Tonkinois et des régions frontières du Quang-si et du Quang-tong.

Ces races, sans doute par l'accoutumance acquise dans une très-lointaine hérédité, jouissent d'une sorte d'immunité vis-à-vis du paludisme, et peuvent vivre dans les vallées, mais ne constituent que des races inférieures et abâtardies et n'ont jamais pu arriver au degré de développement social qu'ont atteint les peuples qui les entourent immédiatement—les Chinois, les Annamites d'un côté, les Siamois et les Birmans de l'autre.

Dans la région de Szémao, il y a encore, à l'état d'ilôts ethniques disséminés, quelques représentants des races Lolos et Hounis, mais ces éléments sont ici en réalité peu importants, beaucoup moins que dans d'autre région du Yunnan, et en train de se fondre dans la race chinoise. On ne les trouve guère, eux aussi, que sur les plateaux et les montagnes élevées.

Cette partie sud-ouest du Yunnan, la seule qui nous occupe, peut donc être considérée comme un ensemble de plateaux, habités par des Chinois et quelques éléments aborigènes, et de vallées, séparant les plateaux, habitées par les Thaïs et leurs divers rameaux.

Cette idée d'ensemble géographique et ethnographique se complète à notre point de vue médical, en disant que les plateaux sont sains et que les vallées sont infestées par le paludisme. Si l'on veut aller plus loin et envisager la future mise en valeur du pays, par une déduction nécessaire des considérations précédentes, nous pourrons dire :

1°. Les vallées habitées par une race de condition un peu inférieure, avec grands espaces vides et incultes, très propres par leur climat aux riches cultures sub-tropicales, seraient très difficilement mises en valeur à cause de l'intensité du paludisme, sauf peut-être pour des émigrants du Quang-tong, qui sont si remarquablement adaptés pour lutter contre la malaria.

2°. Les plateaux habités par une population chinoise assez dense, très bien cultivés, avec peu d'espaces inoccupés, jouissant d'un climat tempéré, seraient une région très favorable à la vie des Européens, mais où il leur serait impossible de lutter contre la concurrence chinoise, et où ils ne trouveraient pas d'espaces disponibles pour l'agriculture.

Le nombre des indigènes qui sont venu demander mes soins pendant le premier semestre est de 152, nombre se décomposant aussi d'après la nature des maladies.

Paludisme, accidents aigus et chronique	33	Herpès circiné	3
Troubles gastriques—dyspepsie	9	Autres maladies de la peau	5
Athrepsie	1	Carie dentaire—abcès	5
Noma	1	Abcès divers—panaris	3
Embarras gastrique fébrile—constipation	5	„ du sein	2
Diarrhée	1	Plaies ulcéreuses diverses	6
Dysenterie rectite	2	Brûlures	3
Stomatite	1	Morsure (tigre)	1
Amygdalites aiguës—pharyngites chroniques	4	Adénite cervicale	2
Laryngite	1	Ostéite suppurée (tibia)	1
Bronchites aiguës	4	Hernie inguinale	2
„ chroniques tuberculeuses	5	Orchite tuberculeuse	1
Endocardite chronique	1	Hémorrhoïdes	3
Myxœdème—infantilisme	2	Phimosis	1
Goîtres	3	Blennorrhagie	3
Rhumatismes—douleurs articulaires	2	Conjonctivite granuleuse	9
Empoisonnement par l'opium	2	Opacités de la cornée—kératite	4
Cachexie opiacée	4	Iritis	1
Gale	3	Cataracte (opérée)	1
Eczémas divers	5	Entropion	1
Rupia syphilitique	1	Otite purulente chronique et mastoïdite	3
		Otorrhée	2

Aucune conclusion spéciale ne peut ressortir de cette statistique, sauf que les maladies paludéennes et les affections oculaires sont relativement nombreuses, ou plutôt sont des maladies pour lesquelles les Chinois viennent trouver assez volontiers le médecin européen.

Pour les affections paludéennes, nous avons dit plus haut comment et où elles sont surtout contractées.

La fréquence des affections oculaires, en particulier de la conjonctivite granuleuse, tient l'état de misère et surtout de saleté dans lequel vit une grande partie de la population.

L'hygiène privée et publique laisse en effet beaucoup à désirer et on ne peut que s'étonner, en voyant les villes chinoises, et se demander, comment il se fait, que les diverses maladies épidemiques ne déciment pas la population, plus encore qu'elle ne le font.

Pendant ce semestre, je n'ai pas vu de cas de peste, et je n'ai pas entendu dire qu'il y en eût dans la ville, ou les environs; mais cette éventualité peut se produire d'un moment à l'autre. L'hôpital d'Hanoï a bien voulu m'envoyer quelques flacons de serum antipesteux. Le cas échéant, je me propose de l'expérimenter aussi sérieusement, qu'on peut le faire parmi une population chinoise et avec les moyens dont on dispose ici.

Une épidémie de variole a régné pendant le deuxième trimestre avec beaucoup d'intensité, cependant la mortalité n'a pas été très grande. Aucune précaution n'est prise et il n'est pas rare de voir dans les rues, portés par leurs mères, des enfants encore couverts de croûtes varioliques.

J'ai vacciné avec succès une quarantaine d'enfants et aucun d'eux n'a contracté la maladie. Le vaccin provenait de l'Institut Pasteur de Saïgon et avait deux mois de date. Devant le succès de cette vaccination, je ne doute pas que les années suivantes, on ne vaccine un beaucoup plus grand nombre d'enfants, mais il faut compter avec la routine et l'indolence des Chinois. Presque tous les enfants vaccinés étaient de familles ayant une position sociale relativement élevée et en général riches. C'est tout le contraire qui se produit pour les consultations ordinaires. Il ne vient le plus souvent que des miséreux, des coolies, des pauvres gens, qui viennent non pas pour se soumettre à un traitement rationnel et quelquefois long, mais uniquement me demander la médecine, qui doit les guérir tout de suite, en une seule séance, et surtout qui ne leur coûte rien.

II.—SPECIAL SERIES.

No. 1.—Native Opium	Published	1864.
„ **2.**—Medical Reports: 60th Issue (First Issue, 1871)	„	1902.
„ **3.**—Silk	„	1881.
„ **4.**—Opium	„	1881.
„ **5.**—Notices to Mariners: Twentieth Issue (First Issue, 1883)	„	1902.
„ **6.**—Chinese Music	„	1884.
„ **7.**—Instructions for making Meteorological Observations, and the Law of Storms in the Eastern Seas	„	1887.
„ **8.**—Medicines, etc., exported from Hankow and the other Yangtze Ports, with Tariff of Approximate Values	„	1888.
„ **9.**—Native Opium, 1887	„	1888.
„ **10.**—Opium: Crude and Prepared	„	1888.
„ **11.**—Tea, 1888	„	1889.
„ **12.**—Silk: Statistics, 1879–88	„	1889.
„ **13.**—Opium: Historical Note; or the Poppy in China	„	1889.
„ **14.**—Opium Trade: March Quarter, 1889	„	1889.
„ **15.**—Woosung Bar: Dredging Operations	„	1890.
„ **16.**—Chinese Jute	„	1891.
„ **17.**—Ichang to Chungking, 1890	„	1892.
„ **18.**—Chinese Life-boats, etc.	„	1893.
„ **19.**—Report on Sound Trials of Sirens	„	1895.
„ **20.**—Chungking: Business Quarter and Mooring Grounds, 1896	„	1896.
„ **21.**—China's Defective Currency: Mr. Woodruff's Remedial Suggestions	„	1897.
„ **22.**—Railways and Inland Taxation: Mr. Bredon's Memoranda concerning	„	1897.
„ **23.**—Outward Transit Pass Procedure at Canton: Provisional Rules	„	1897.
„ **24.**—International Marine Conference, Washington, 1889	„	1898.
„ **25.**—West River: Report on Trade Conditions, etc., in 1897	„	1901.